

STAR LEGIONS™



Trevor Sorensen's
STAR LEGIONS TM

by

Supernova Creations
and
Mark Baldwin

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DEDICATION

This game is dedicated to the memory of two wonderful young men and good friends, who contributed to the evolution of the *Star Fleet* series:

Robert H. Jones, Jr.

Mark T. Terrell

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INTRODUCTION

Star Legions is a game of planetary invasion and conquest in the *Star Fleet* series, which to date has included *Star Fleet I - The War Begins!* and *Star Fleet II - Krellan Commander* (both published by Interstel Corporation). This series chronicles the life and death struggle for control of our galaxy during Galactic War II. This conflict is as a crusade of revenge by the Krellan Empire, in alliance with the Zaldrion Empire, to destroy the democratic United Galactic Alliance (UGA), which had humiliated them during the first galactic war.

Star Legions greatly expands upon one segment of *Star Fleet II* - planetary invasion. In *Star Legions* you will be in command of a Krellan invasion fleet during conquests of UGA and other inhabited planets. Each mission begins when you take over command of the fleet. This occurs only after the fleet has defeated any space forces defending each planet, and your ships have obtained orbit. From that point until the planet is conquered (or you fail) you will have complete control of the invasion fleet and its legions of Krellan warriors. *Star Legions* is a game of planetary invasion, not ship-to-ship space battles.

When you sign on as a new invasion commander in *Star Legions*, you will be embarking on a career that will present many opportunities to gain riches, fame, promotion, awards and decorations. You will start as a Commander, then after you prove yourself worthy, you will be promoted to Prefect, General, Field Marshal, and finally appointed to the honorary court rank of Imperial Tribune. However, only the ablest and most successful commanders will reach this honor.

This manual is laid out in a way that should help you to get started commanding an invasion as soon as possible, as well as to provide an invaluable reference. First is a background briefing (which you can skip if you are a veteran Krellan Commander, or you really want to). This is followed by instructions on how to get *Star Legions* set up to run on your hard disk and how to start up a new game. This leads to the tutorial section. The tutorial takes you through a very simple invasion mission from start to finish, teaching you about the basic displays, controls, and tactics along the way. The rest of the manual is basically for reference. There is a large section which describes all the displays and controls in

detail. The next section gives you a battle plan checklist and discusses strategies and tactics that may assist you in your invasions. The appendices contain a summary background history, and well as detailed information, facts, figures, etc. that will provide a useful reference while playing the game.

Please note that *Star Legions* is set up to start you out with very simple missions and gradually work you up to the more challenging invasions as you gain experience. Do not judge the game as being too easy by just the first few missions. The later missions will more than make up for it. We fully expect you will have many hours of quickened pulse and beads of sweat before you reach the ultimate goal of becoming an Imperial Tribune.

Enjoy!



PRE-COMMAND BRIEFING

Scum of the universe, pay attention or die!

That's better. But if you expect to be promoted up from the lowly rank of Commander, you'd better learn to spit. On your boots. Now, sit down. On the floor. You will address me as "Imperial Tribune, SIR!" I have more important things to do than lecture a bunch of snot-nosed baby officers, so listen up.

You pansy-foot novices think you're really hot stuff having just graduated from the Advanced Leadership Program at the Imperial Officers College. Well, come back to down to Krella. Your being here at Imperial Krellan Fleet Headquarters (KHQ) just proves one of two possibilities. Either the computers have screwed up again, or the Empire is really getting desperate to find men and women to lead our glorious legions in the conquest of the galaxy.

Eventually, you will have the honor of invading the planets of our hated enemy, the United Galactic Alliance (UGA). As you know, the UGA has spread the scourge of democracy around the galaxy. This evil cancer saps the strength and honor of great civilizations like ours, and turns them into degenerate societies that encourage the survival and growth of the weak. This is contrary to the natural fundamental law of the universe - survival and dominance of the strongest!

I will refer you to look at Appendix A of your manual for a recap of the events that have led to the current war and the current strategic situation. I wouldn't want to bore you, now would I? So let's get down to the crux of why you are here.

The Invasion Fleet

You will each be in command of a Krellan invasion fleet. We don't really trust your worthless ability to command, so we will at first only assign you easy planets to conquer - ones which your grandmother's zlagnum card club could overrun in a day or two. For these pushover planets, your invasion

fleet will consist of your flagship battlecruiser, one supply ship, one troopship containing four legions of equally green troops, and several escorting destroyers. As your assigned missions become more difficult, the size of your invasion fleet will be increased. For instance, for invasions of high technology UGA planets, your fleet will be increased to include eight troopships with 32 legions, with a corresponding increase in the number of escorting battlecruisers, destroyers and supply ships.

You can use battlecruisers and destroyers to bombard planets, if necessary. As you know, troopships cannot land on planets during invasions, so each carries four drop ships, which can shuttle legions to and from the planet surface. Of course, your shock troops do not need any ships to get to the surface, but more on that later. The supply ships naturally do as their name implies - they resupply the other ships as needed. Detailed information about the ship types is contained in Appendix B.

Of course, as an invasion commander, we don't trust your ability to lead the fleet between Krellia and its third moon without getting things hopelessly screwed up, so you will not be given command of the fleet until it has reached the target planet, eliminated any opposing space forces, and entered standard invasion reconnaissance orbits. Until that time, the captain of your battlecruiser, who is also the Battle Fleet commander, will be in charge. Just to make sure that you don't interfere, you will be put into stasis until that time.

You will not have to concern yourself with the internal running of your flagship. That's what the captain and the ship's officers are for. They are well trained and will report any necessary information to you without prompting. If they don't, you can volunteer them for mine field clearance duties on the planet's surface.

The Combat Forces

The ground combat units in this campaign, whether Krellan or enemy, are rated by their relative *fire power*, which is expressed in fpu's (fire power units). Fire power is a function of the unit's *strength*, which is the number of troops currently in the unit; its *combat effectiveness*, which is expressed in percent, and is a measure of its experience, morale, and current fatigue

or readiness level; and its *strike effectiveness*. Strike effectiveness is a measure of the combat quality of a unit based on its weapons, equipment, defenses, and degree of training. The strike effectiveness is set to 1.0 for warrior cohorts. For planetary militia units and forts, the strike effectiveness depends on the technology level of the planet. For Krellan units, the fire power is also affected by the battle rating of the parent legion (described in the next sub-section), which is expressed as a percent.

In all the tactical displays of invasion zones you will be using, color is used to distinguish between Krellan and enemy units, as well as to identify which side controls the cities, factories, etc. We use white to identify Krellan units and ownership, and red to identify the enemy. Characteristics and details of the various combat units are shown in tables in Appendix B.

THE LEGIONS

The basic integral fighting unit of the Krellan army is the *legion*. There are two types of legions, the *battle legion*, which is designed for long campaigns against powerful foes, and the *assault legion*, which is used primarily for initiating planetary invasions. You will only be using assault legions during this campaign. The battle legions are being kept in reserve for that glorious future day when we invade the UGA home planets.

For this campaign, there is a pool of 100 assault legions available. The legions assigned by KHQ to each invasion fleet come from this pool. The legions, which are as green as you "super cadets," start out with no battle experience, and unnamed. They have to earn the privilege of being named. *Battle honors* may be awarded by KHQ to the participating legions after each successful invasion, based on their contribution to the conquest and the technology level of the planet. After five battle honors have been earned, the legion earns the honor of being named by the Emperor himself. This name and its associated banner will be proudly displayed by the legion for the remainder of the campaign.

The *battle rating* of a legion is a measure of its current level of experience and training. This rating is expressed in percent, and is factored into the strike effectiveness of the legion's cohorts during an invasion, which affects their fire power. A legion starts with an initial battle rating of 70%. As it gains combat experience, the battle rating will increase. If the

legion suffers heavy casualties during an invasion, the replacement troops will be newly graduated recruits. They will lower the overall rating of the legion somewhat, although the surviving veterans can share their experience and knowledge with the replacements. A battle-hardened legion with many battle honors will eventually achieve a battle rating of 100%, which is as an effective a fighting force as it can be.

Assault Legion

Each assault legion consists of 10,000 legionaries, divided into ten combat units called *cohorts*. Each cohort has 1,000 legionaries. There are two types of cohorts - the lightly armed elite *shock troop* cohorts and the heavily armed and armored *warrior* cohorts.

You must use shock troops for the initial attack on a planet. This is because they can be sent down using teleporters (energy transport beams), while the warrior cohorts with their heavy armor require drop ships for transportation. The catch to using drop ships is that they can only land on landing pads, which have to be built by your troops. [Editor's note: Using a current analogy, think of shock troops as paratroopers, which are dropped in to secure roads and bridges, etc., for the advancing armor units, which correspond to the Krellan warrior cohorts.]

SHOCK TROOPS



Each shock troop cohort consists of 1,000 shock troops. These troops are your elite lightly armed and armored assault troops.

The maximum fire power of a shock troop cohort is 600 fpu. Shock troop cohorts can be transported to and from the planet's surface using either teleporters (assault mode) or drop ships. Because they are more lightly equipped, they move faster than the warrior cohorts, and even slightly faster than the enemy planetary militia and UGA regular units. Shock troops are essential for securing a landing site for the following drop ships and are especially suited for fast raids to knock out shield generators, planetary defense phasers, or surface-to-air lasers. Shock troops are your most valuable resource, so treat them with respect! On heavily defended planets, do not allow them to stay in combat, especially with UGA regulars or against forts, unless absolutely necessary. Get them the hell out of the zone as soon as they've done their job! Many a commander has rued the day his last shock troop cohort was lost with

dozens of warrior cohorts sitting helplessly in orbit, unable to attack new zones.

WARRIORS



Each warrior cohort consists of 1,000 warrior legionaries. These are your heavy units, with massive amounts of armor and heavy weapons, which include hovertanks, mobile artillery, close-support aircraft, ground support lasers, etc. The maximum fire power of a warrior cohort is 1,000 fpu. Warrior cohorts are sent into a zone after the shock troops have secured or built a landing pad, since they can only be shuttled to and from the planet's surface in drop ships. The main purpose for your warrior cohorts is to attack and break the defending forces of each invasion zone, and to mop up any resistance. They are especially suited for tackling the powerful UGA regulars and forts. Warrior cohorts move much slower than shock troop cohorts, and slightly slower than planetary militia and UGA regular units.

DROP SHIPS



Drop ships are used to shuttle legions between the orbiting troopships and the planet's surface. Each drop ship can carry six cohorts (6,000 legionaries and equipment) at one time. There are four drop ships carried by each troopship. Drop ships are only lightly armed, yet are heavily armored to withstand enemy ground fire (except for surface-to-air lasers or missiles). Each drop ship has a crew of 50 and a fire power of 50 fpu while on the ground.

THE ENEMY DEFENSES

On UGA or high tech level planets, the entire planet may be surrounded by a powerful energy *planetary shield*. The planet is impervious to your attack until the combined bombardment of your battlecruisers and destroyers can knock out this shield. Of course, while you are doing this, the enemy will probably be shooting back.

On enemy planets of tech level 2 or greater you will encounter native troops called *planetary militia*. On UGA planets you will also face the *UGA regulars*. Besides these mobile units, there are also static defenses. We will now discuss the various types of combat units and defenses you will meet.

PLANETARY MILITIA



The planetary militia units are battalions of 1,000 native soldiers each. Their strike effectiveness and resulting fire power depends on the technology level of the planet. Low technology level (2-5) militia units are no match for your cohorts, but the high technology level (6, 7) militia units can be pretty tough, and are usually a match for your shock troop cohorts. The fire power of the militia units varies from 20 fpu at tech level 2 to 600 fpu at tech level 7. Militia units start out at a 50% manning level, i.e., a strength of 500 troops. Once the assault begins, the reserves will be called in and the unit strength will gradually increase up to its full strength of 1,000 troops. Note that the militia icon shown here will be different for the lower tech level planets (see Appendix B). Planetary militia units move slightly faster than Krellan warrior cohorts, but slower than shock troop cohorts.

UGA REGULARS



The heavy enemy units are battalions of *UGA regulars*, each with 1,000 tough and heavily armored Alliance soldiers. They can overpower your shock troop cohorts and are nearly a match for your warrior cohorts. Like your warrior cohorts, the UGA regular battalions are equipped with hover tanks, heavy lasers, ground support aircraft, etc. The maximum fire power of a UGA unit is 900 fpu. Fortunately, they are not present on all planets. UGA regular units start out at a 90% manning level, i.e., a strength of 900 troops. Once the assault begins, the troops on leave will be recalled and the unit strength will gradually increase up to its full strength of 1,000 troops. UGA regular units travel at the same speed as planetary militia units, i.e., slightly faster than Krellan warrior cohorts, but slower than shock troop cohorts.

FORTS



Cities and vital installations, such as shield generators, are protected by *forts*. Forts are very strong defensively, especially on the higher tech level planets. The fire power of forts varies from 20 fpu on tech level 2 planets to 600 fpu on tech level 7 planets. Each fort has a garrison of 500 planetary militia troops and is initially manned at a level of 80% (400 troops). Like the previous enemy units, the manning of forts increases to 100% once the assault starts.

SHIELD GENERATORS



Each city on high tech or UGA planets is protected by one or two *shield generators*. These generators provide an umbrella-like energy shield over the city, which is resistant to phasers and torpedoes. Do not confuse these city shields with the planetary defense shields, which surround the entire planet. The planetary shield generators will be destroyed by our preliminary bombardment and thus do not factor into our ground assault. Our teleporters do not work through a city shield, and our drop ships cannot pass through them. However, enemy defensive lasers and phasers can fire out from under a shield. City shields do not extend completely to the ground, so the area covered is vulnerable to ground attack. Each shield generator is protected by a squad of 10 soldiers. The maximum fire power of this squad against ground attack is 10 fpu for UGA planets, and from 2 to 8 fpu for non-UGA planets, depending on the tech level. Shield generators are non-mobile.

SURFACE-TO-AIR LASERS (SAL)



Lasers or missile batteries provide protection for cities on some planets against air attack. Lasers are used on all UGA planets, as well as on tech level 6 and 7 planets. Tech level 5 planets use less effective missile batteries. The lasers can be especially deadly to our drop ships. We have calculated that the probability of a drop ship being hit and destroyed by a SAL during landing for takeoff is 18% for tech level 6, and 30% for UGA or tech level 7 planets. And that is just for a single SAL. Some cities are protected by more than one. SAL can fire up through an active city shield, so you will usually find that SALs will be protected by the shield. The best way to take them out is by sending in a cohort or two of shock troops. SALs are non-mobile, and each has a squad of 10 soldiers for ground defense. The maximum fire power of this squad against ground attack is 10 fpu for UGA SALs, and from 2 to 8 fpu for planetary militia ones, depending on the tech level.

PLANETARY DEFENSE PHASERS (PDP)



Besides protective shields, high technology planets also have active planetary defenses. They use massive *planetary defense phasers* to hit, and possibly destroy, your orbiting ships. They can fire through both planetary and city shields. Their rate of fire is slow, and the higher the orbit of the target ship, the less effective is the hit. The PDPs are located in the strategic cities. Because of their bulk and slow

aiming mechanisms, PDPs are useless against your drop ships. PDPs on UGA and tech level 7 planets are more powerful than those found on tech level 6 planets. PDPs are non-mobile, and each has a squad of 10 soldiers for ground defense. The maximum fire power of this squad against ground attack is 10 fpu for UGA PDPs, and from 2 to 8 fpu for planetary militia ones, depending on the tech level.

Surface Combat

Instructions on how to initiate and conduct combat on the planet surface are in the **Zone Control Panel** and **Invasion Checklist** sections of this manual. However, as most of you won't read those sections until you've had your tails kicked on some primitive backwater of a planet defended by infants with slingshots, I will introduce a few combat basics at this point.

Each combat action involves an attacking unit and a defending unit. The fire power of a combat unit determines how much effect it will have on the enemy units it engages in combat. The fire power is a function of the unit's strike effectiveness (which doesn't change), its combat effectiveness, and its strength. The unit's fire power causes losses in the manpower (i.e., the strength) of the opposing unit, based on the relative fire power and terrain. When a unit's strength reaches zero, it is destroyed.

The combat effectiveness, a measure of the unit's fatigue and morale, will decrease after every combat action. The attacking unit's combat effectiveness will decrease by 25%, while the defending unit's effectiveness will decrease by 20%. The unit's combat effectiveness will gradually be restored while the unit is not involved in a combat action. It is advantageous to have several units attack a single unit, as the single unit will be unable to rest and restore its decreasing combat effectiveness.

Shock troops are particularly vulnerable immediately after teleporting into an invasion zone because their combat effectiveness is only 50%. This is due to the after effects and disorientation of beaming. They will gradually regain their combat effectiveness. Shock troops also suffer a 25% reduction in combat effectiveness immediately after being ordered to withdraw.

EFFECT OF TERRAIN ON COMBAT

The type of terrain occupied by the defending unit in a combat action has an effect on the losses suffered by the unit. Terrain is rated by defense factor (DF). The higher the DF, the more favorable the terrain is to defense, and the fewer the casualties. Clear terrain has a DF of 1.0. The least favorable terrain for defense is water (DF=0.5), while the most favorable are urban areas, space ports, and rubble, all with a DF of 2.0. The DFs for the various terrain types are shown in Appendix B. The terrain occupied by the attacking unit has no effect on the combat results. It is always assumed to have a DF of 1.0.

The Planets

As you should know from your training, we use a standard classification system for planet types, life forms, and technology levels. We are only interested in planets of the types: K (Krella-like), A (aquatic), D (desert), I (ice, frozen), and B (barren, but with mining colonies).

Each of the planets you attack will be inhabited. What was that? You asked why? You twit! If it wasn't inhabited, it wouldn't have to be invaded! The dominant intelligent life form on each planet you encounter will be one of the following types: *humanoid* (like us Krellans), *mammalian*, *reptiloid*, or *insectoid*. The fighting ability of the planetary militia does not depend on the life form type.

We have classified the likely technology levels of these planets on a scale of 1 to 7:

- Tech Level 1 are societies of primitive nomadic hunters, which have no organized armed forces.
- Tech Level 2 are primitive agricultural societies, which have primitively armed militia.
- Tech Level 3 are medieval-type organized agrarian civilizations with no industrialization, but which do have primitive militia forces.

- Tech Level 4 are medium technology civilizations with extensive industrialization, radio communications, but no nuclear power. Their militia forces are conventionally armed, but can pose a threat to our legionaries, especially if our forces are greatly outnumbered.
- Tech Level 5 are medium technology civilizations with extensive computerization, nuclear power, and industrialization, but little or no manned space flight. Their militia forces can be a threat. They can have planetary defense or surface-to-air missiles. Their most important cities and strategic sites will be protected by localized energy shields that are resistant to our phasers and torpedoes.
- Tech Level 6 civilizations are high technology with interplanetary, but not interstellar, flight capability. Tech level 6 planets are surrounded by a planetary defense energy shield, which protects the planet against our phasers, torpedoes, and even scanners. However, their shields are not very strong, and a short intense bombardment by the fleet should knock down their shield and open up their planet like an over-ripe xlutzi fruit to our invasion forces. Their defenses include planetary defense phasers (PDPs), which can hit your ships in orbit, and surface-to-air lasers (SALs), which can shoot your drop ships out of the sky. Their militia forces are almost a match for your own troops.
- Tech Level 7 civilizations have very advanced technology equivalent to our own. They possess very strong shields and powerful defenses. Their defenses consist of the same elements as the tech level 6 planets, but are much stronger.

UGA planets and colonies will have a native civilization of at least tech level 5, but the UGA forces will always be at tech level 7.

PLANETARY MORALE

Each planet of technology level 4 or greater has a planetary morale value. This is a measure of how the people and government feel about their situation in the current invasion. Planetary morale is found only in the higher tech level planets, because you need at least the capability of radio or telegraph to keep the population of the entire planet informed of events as they happen. The natives of the more backward planets don't even

know there is an invasion taking place until they suddenly come face to face with teleporting shock troops.

The planetary morale is affected by significant events during the invasion. The loss by the enemy of a city, either by conquest or destruction, has a large negative effect on the morale. Each loss of a planetary militia or UGA unit has a smaller negative effect on morale. Destruction of Krellan legions or orbiting ships has a large positive effect on morale. Destruction of drop ships and cohorts has a lesser positive effect. General damage to the planet (as indicated by the Planet Damage value) also affects the morale value. The greater the damage, the lower the morale of the natives.

Unfortunately we have no way to know the exact value of the planetary morale during an invasion. The best we can do is to let you know the best estimate of the general level of planetary morale (high, medium or low) by your fleet's Intelligence section. Once the morale of the planet drops to zero, then the planetary government will surrender, and victory is yours!

The Missions

Each mission will begin with you and your senior officers receiving a mission briefing here at KHQ. You will receive the latest intelligence and information about the targeted planet and its defenses.

The planets you will be assigned initially are independent. As you are promoted to higher rank and can be trusted with more responsibility, you will be assigned UGA planets and colonies to conquer. These planets will have civilizations of at least tech level 5 and will be protected by Alliance forces. As you probably know, the UGA regulars are tough and almost the equal of our warriors.

You will be given a deadline for completing each mission. This deadline is the amount of time your superiors judge as ample for you to complete the mission. However, the deadline might be determined by other factors, such as the time that an Alliance war fleet is expected to arrive to rescue the planet.

When you start in orbit around a planet, your battlecruisers and troopships will scan the planet to designate possible target "cities" for attack. Once identified, these cities will appear on the planet map. You will select from them up to eight invasion zones at one time. The object is to capture (or as a last resort, destroy) cities until the planet surrenders. How to do this is discussed later in this manual, in particular the section entitled **Invasion Checklist**.

Your Career

As I stated previously, you will start out with easy planets to conquer. The enemy defenders will only provide target practice for your troops. As you gain experience and prove your command abilities, you will be assigned more difficult planets. KHQ will rate your performance during each mission. If you're a lot smarter than you look and maintain a high enough rating (72%), you will be promoted after you have successfully completed five missions at your current rank. You are, of course, starting out at the fleet rank of *Commander*. Promotions then progress to *Prefect*, *General*, and finally *Field Marshal*. After you have met the minimum requirements as a Field Marshal, you may, upon the approval of the Emperor himself, be bestowed the honorary court rank of *Imperial Tribune*. Of course, we know that most of you will never reach that exalted level. Personally I doubt that any of you have what it takes.

For each successful invasion completed, you can earn various imperial awards and decorations. These are listed, along with their award criteria, in Appendix B. You will also earn slaves and gold, in the form of Imperial Krels, from each successful conquest. The amount of each depends on the worth of the planet to the Empire.

Please note that destroying cities by bombardment will make it VERY difficult for you to be promoted. Don't forget that, you loggerheads! We at KHQ will be very upset if you excessively damage any of the beautiful planets that we are liberating for the personal use of the imperial court or endanger any planets with resources and industrial capacity to strengthen our glorious Empire!

So why are you still sitting there? Get moving, you lazy dogs! And wipe the drool off your chin before you drip all over the floor.

GETTING STARTED

Installation and Setup

Star Legions is not playable from the disks contained in the software package. The program is compressed and is designed to be run from a hard disk. To decompress the files and install it on a hard disk ready to play, just do the following steps:

1. Insert the SL Disk 1 into a disk drive (e.g. A:).
2. Set your computer to that disk. For example, type:
a: [Enter]
Single keys on your keyboard are designated by [].

3. Type
install [Enter]

4. You will now receive instructions and information to help you set up *Star Legions* for play. The installation program will make any directories that are needed. You will be able to specify the directory names if you like, or you can use the default ones.

5. Once the transfer and decompression of the files into the SL directories is completed, the install program will transfer you to the configuration program. Here you will be able to choose the desired sound board or system. You can change the startup configuration at any time from the DOS prompt in your SL directory by typing:
config [Enter]

6. Once your setup preferences have been concluded, the install program will page through the readme file on the disk. This contains important updates, changes and corrections to this manual, and possibly other information. You can also access this information any time from the DOS prompt in your SL directory by typing:
readme [Enter]

7. When the install program says it is finished you may start SL by typing:
SL [Enter]

The First Mission

When you start *Star Legions* you will see the opening title screens. The screens can be exited and music stopped just by pressing a key or a mouse button during the presentation.

KHQ SECURITY

After the introduction screens, you will come to the Entry Security screen (Figure 1). This screen shows the armored security doors outside the mission briefing room at Krellan Imperial Headquarters. You will need to identify yourself to security before entering this room. On the right door is a communications video device (CommVid), which shows the security guard. There is a text display which shows what the guard says. Follow his instructions.

If this is your first time on, then you will be asked to press the **New Recruit** button. You will be instructed to enter the name (usually last name) that you want to use in SL. Names can be up to 16 characters in length. Remember, you are starting a career as a planetary invasion commander, so this is the name by which you will be known.

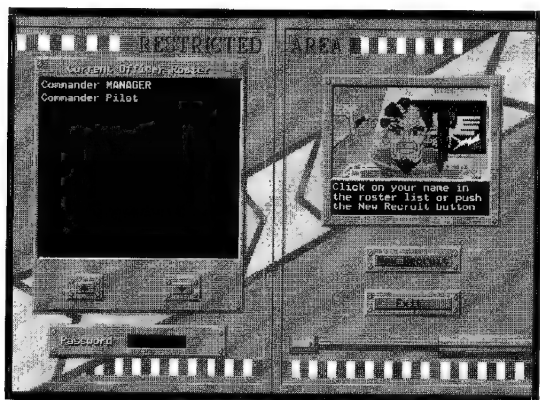


Figure 1. Entry Security Screen

If you are a new commander, you will be prompted to enter any password up to eight characters long. If you don't want a special password, just press **[Enter]**.

For your subsequent entries as a registered commander, your name and rank will appear on the commanders list in the display on the left security door. Simply point and click (with left mouse button) on your name. You will then be prompted to enter your password. As you type the password, masking characters will appear in the password display on the lower part of the left door. Press **[Enter]** when finished. If you suddenly decide that now is not the time to start an invasion after all, you may click the **Exit** button to return to DOS.

Note: If you want to conquer a planet with a type and technology level of your choice, you may enter the name "Demo" here. No password is required. You will be given commander number zero. No awards will be given, and no service record will be kept. A panel will appear which allows you to choose the planet type, tech level, and whether or not there are UGA forces present. The sign-on options will be skipped, and you will directly to the mission briefing. If you want to resume a game saved while playing as demo, then you must enter the name as "Resumedemo."

If you select the name "Manager" and enter the password "fleet" you will be able to modify the commanders files on record. Select one of the commanders shown in the display list, and you will be able to either change the password or delete the commander from KHQ records. If you do not want other players of *Star Legions* to have this same capability, then change the password of Manager to whatever you like. When you are finished making the changes, you can click the **Log Another Officer** button to sign on as your regular self, or you can click **Exit** to return to DOS.

If you entered the name and stored password correctly, your authorization will be acknowledged by the security guard, and the doors will open to reveal the Missions Control briefing room. You will notice there is an empty console waiting for you at one of the tables.

SIGN-ON OPTIONS

You have taken your seat at your console in the Mission Control briefing room. You now have before you your sign-on options and data display monitor (Figure 2).

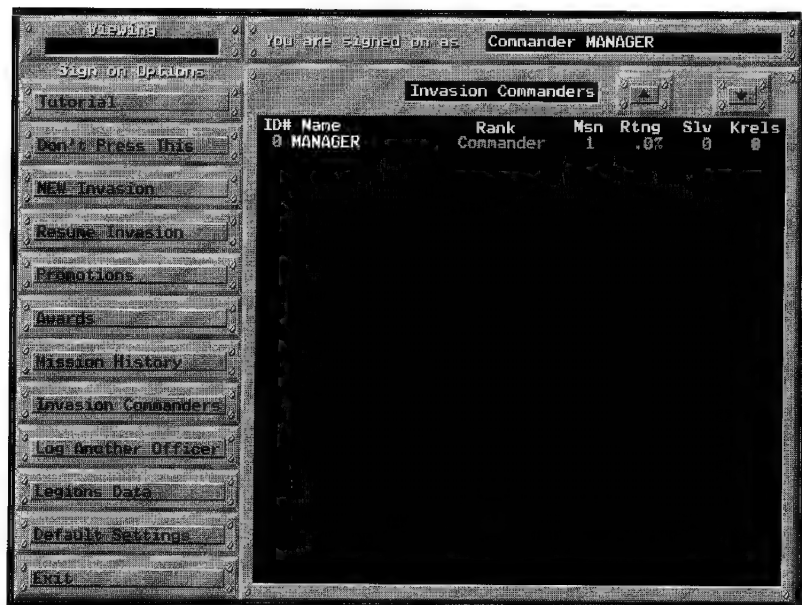


Figure 2. Sign-On Options Screen

Click on the desired option in the menu panel on the left side of the screen. The promotions, awards, mission history, and legions data options can be viewed for any of the other commanders. If you wish to select someone else to view, simply point to and click on their name in the Invasion Commanders data display. The commander whose record is currently being viewed is shown in the upper left corner of the screen. Initially, you are the commander being viewed, and this indicator will be blank. To resume viewing your record, click on your name in the Invasion Commanders list. These service record options are noted by an * in the following descriptions. The following options are available:

Tutorial

This will start the tutorial sample game, which is described in the next chapter. You can select this option as often as you like.

Don't Press This

You might want to heed the advice on this button. If you decide to press it anyway, no permanent damage to your career or hardware will result. However, we cannot predict what psychological effect it will have on you.

New Invasion

This will start a new invasion mission. If you left your previous mission unfinished, you will receive a warning about starting a new mission. If you decide to continue on into a new mission, then the unfinished mission will be recorded with a 0.0% mission rating in your service record. If you decide it's not worth the damage to your career, then you can select the Quit button, which will return you to the Sign-On Options screen.

Resume Invasion

This option allows you to resume an unfinished mission which you have previously saved. The data for the saved mission will be in a file named SLSAVE.### in the SL sub-directory \save, where ### is your player number (shown in the Commanders Display on this screen). Since only one saved mission is allowed at a time, you will not have to specify the name of the saved game file. The computer will automatically search for and load it.

Promotions*

This option allows you to view the promotion history of the currently selected invasion commander. If one of the promotions is to Imperial Tribune, you can click on that promotion listing to see a copy of the official award document.

Awards*

This option allows you to view all the decorations and awards that have been earned by the currently selected invasion commander. The awards will start by showing the Level I awards (see Appendix B) that the commander has earned. Click on the down arrow button to page down to

the next level of awards, followed by any special awards earned. If more than one of any decoration has been earned, then the total number owned is shown in () after the name of the decoration. To return to the main menu from this option, click on the **Invasion Commanders** button.

Mission History*

This option allows you to view the mission history of the currently selected invasion commander. A summary of the invasion missions will first be shown in the data display. This summary shows the name of the planet, whether or not the planet was conquered, how long the mission took, and the rank of the commander at the time. You can click on the up and down arrows to scroll the display pages if the original page is full.

You can view the details of the planet and mission by clicking on the name of the planet in the summary display. The data display will show a rotating view of the planet, data about the planet and its inhabitants, a summary of the invasion statistics, and will list any awards or promotions the commander received at the conclusion of the invasion. You can click on the display down and up arrows to view the next or previous detailed mission reports, or you can press one of the sign-on option menu buttons to exit from the detailed report.

Invasion Commanders

This option shows you all of the commanders that are currently signed up on your computer. This is the initial screen that shows on the data display when you first view your sign-on options screen. [Note that in this manual we use the term "commander" as a generic officer of any rank, while "Commander" is the actual first rank.] For each commander, the following data are shown:

ID# This is the commander number assigned by the computer at the time the commander first signed on as a new recruit. This is the number that the computer uses as the extension on all data files associated with that commander (e.g., the legions data file for a player with ID#4 will have the name LEGIONS.4).

Name This is the name the commander signed on as.

Rank This is the current rank of the commander. The possibilities are, in ascending order: Commander, Prefect, General, Field Marshal, Tribune.

Msn This is the number of missions completed at the current rank. It takes a minimum of five missions before a commander can be promoted, but since a minimum average mission rating must be achieved, the number of missions can exceed five.

Rtng This is the current average mission rating of the commander at the current rank in percent. The mission rating shown is the average of only the last five missions at the current rank. This is known as the "sliding" mission rating.

Slv This is the total number of slaves earned by the commander in his or her career. Slaves are awarded after each successful conquest.

Krels This is the total number of Krels, which are Krellan gold pieces, earned by the commander in his or her career. Each commander is rewarded with a bounty of Krels after each successful conquest based on the worth of the planet to the Empire, and the difficulty of the invasion.

Log Another Officer

This option allows you to sign on as another commander, if you know the password of that commander or intend to sign on as a new recruit. This option is intended for those players that are playing with more than one persona, or want to start a new one.

Legions Data*

This option allows you to view the status of the legions assigned to the currently selected invasion commander. For each commander, the following data are shown:

No The number of the legion, between 0 and 99.

Name The name of the legion. All legions start unnamed. They have to earn five battle honors before they are honored by receiving a permanent name and emblem.

A This indicates whether or not the legion is currently active in an invasion, i.e., a saved game. An active legion is not available to start a new mission. This field is blank if the legion is not active.

B.Rtng This is the current battle rating of the legion. This rating is a measure of the experience and esprit de corps of the legion. This battle rating factors into the fire power of its member cohorts during invasions. Inexperienced legions start with a battle rating of 70%. Veteran legions with many battle honors will achieve a rating of 100%. If the legion suffers many casualties, then the inexperienced replacements will lower the overall battle rating somewhat. However, the illustrious veteran legions will still maintain a higher battle rating than the inexperienced ones, despite the number of replacements.

Warriors The number of warrior legionaries currently in the legion. A full-strength legion has 6,000 warriors.

Shk Trp The number of shock troop legionaries currently in the legion. A full-strength legion has 4,000 shock troops.

Honor The total number of battle honors that have earned by the legion. Battle honors are earned based on the amount of fighting the legion participated in during an invasion, and the strength and quality of the enemy forces.

Default Settings

This option allows you to view and change the game settings, based on your equipment and preferences. When you select this option, a Settings panel will appear in the data display area (see Figure 3). You change a setting by clicking on the setting button, and use the arrow button to change the value. Most of the settings only have two values, so this button will toggle between the values. When you are satisfied with the settings, click on the **OK** button to exit this panel. The following settings can be changed:

Sound Board This selects the type of sound system to use. This parameter cannot be changed from within the game itself, but can be changed whenever you are at the sign-on options menu or by running the program config from the DOS prompt. The options are:

1. PC speaker.
2. Sound Blaster (required for voice).
3. AdLib.

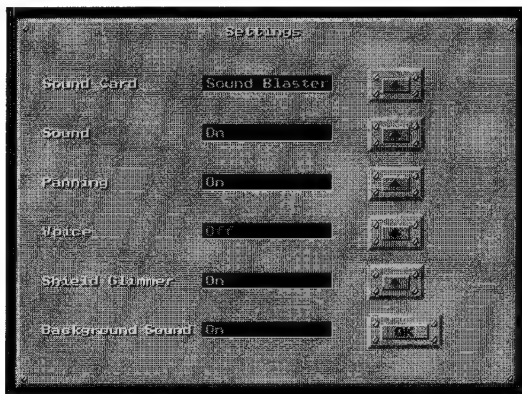


Figure 3. Sign-On Settings Panel

Sound This toggles all sound, including music and voice, on or off for the game. This parameter can be changed during a mission in progress. The default is *on*.

Panning When this switch is on, the game will pan from panel to panel as you change your selection, and the communication video device (described in **Invasion Command Console**), will move onto and off the screen as it is deployed and retracted. If this switch is off, then there will be no panning. The new panels will just "pop" on to replace the previous ones, and the communications video device will just pop into place and off again. The main purpose for turning the switch off is to speed up game play, which may be particularly useful on low performance computers (probably less than 20 MHz process speed). This parameter can be changed during a mission in progress. The default value is *on*.

Voice This toggles the voice on and off. Voice is only available for Sound Blaster compatible cards, and if you have selected the Sound Blaster option as your Sound Board. The default value is *on* if Sound Blaster has been selected, otherwise it is *off*.

Shield Glimmer This toggles the color cycling (glimmer) of the city energy shields on and off. Some people may find this effect annoying, or on some of the slower computers, the glimmer effect can noticeably slow down the game play. City shields only appear on UGA planets or planets of tech level 6 or greater. The default value is *on*.

Background Sound This toggles the background sound heard during the game on and off. Background sounds consist of low-level sounds, such as engine noise, power generators, ventilation, and electronic sounds, that are typical of Krellan battlecruisers. If you find the sounds annoying, you can turn them off without affecting the rest of the game sound effects. The default value is *on*.

Exit

This button will quit *Star Legions* and exit you back to DOS.

THE BRIEFING

When you have either selected to start a new mission or resume a saved mission, your view will change to take in the briefing table. The officers commanding the invasion and battle fleets will also be present. In the center of the table is a rotating holographic projection of the planet you are being assigned to conquer. Information about your fleet, the planet, and the mission will be displayed on your monitor. Click on the OK button to the left of the monitor when you are ready to embark on your mission. You will see a scene of the stasis chamber you are being kept in during the trip to and the battle for the planet. When you awake, you will be at your Invasion Command Console, ready to strike down the enemies of the Empire, and achieve the glory you so richly deserve!

TUTORIAL

The *Star Legions* tutorial provides a quick way for you to become familiar with the game without having to read this whole manual. The mission assigned for the tutorial is purposely the easiest possible. It is a tech level 1 planet (primitive nomad hunters) with few cities (actually villages) and no organized defending forces (planetary militia). Your troops just have to march into the villages to conquer them. However, without the distraction of enemy units, you will be able to become familiar with the controls and displays without pressure. Remember that SL is a real-time simulation, and the enemy won't stop just because you are thinking!

To start the tutorial, first follow the installation and setup instructions in the previous chapter. Start SL and follow the **First Mission** instructions to sign on as a new recruit. When you come to the Sign-On Options screen, click on the **Tutorial** button. The following tutorial game will start. Since this is only a tutorial, the outcome of the tutorial mission will not affect your service record at all.

The tutorial starts with you sitting at your console at the mission briefing table. To your left and right are fellow officers from your invasion fleet. Appearing above the center of the table is a rotating holographic image of the target planet. On the data display in front of you is information about the invasion fleet, the planet, and the mission. Your flagship will be the battlecruiser *Death Kiss*, and there will be one supply ship, four destroyers, and one troopship with four legions in your invasion fleet. You will be invading a Class A (aquatic) planet named Yhif by the natives, who are mammalian. The estimated population is 800,000. There are no UGA forces present on this planet and no planetary militia. This should be a piece of cake! Your orders give you a deadline to complete the mission. However, since this is a tutorial, the deadline is ignored. Click on the **OK** button at the lower left edge of your display console. You will be transported to the planet in stasis. When you are revived, your fleet will be in orbit around Yhif.

You will conduct the invasion from the Invasion Command Console. This console consists of six panels aligned in two rows of three panels each. Each panel occupies one screen. In the upper right corner of the screen is the Panel Transfer Control. This control has a button for each panel on the command console. On the button is a

representation of the panel to help you recognize it. You can go to any of the panels by pressing its button. The currently displayed panel is indicated by a yellow highlight. The Planetary Control Panel, which is the one currently displayed and highlighted, is the upper left panel.

On the left side of the screen is the Planet Data display. The important thing to note now is that the planet has four cities. Look at the flat map of the planet and you will notice a funny-looking gray object with a dotted circle around it moving across the map. The object shows the position of your ship over the planet's surface, and the dotted circle is your current field-of-view (FOV) of the planet's surface. This means that from your ship you can not see any of the planet's surface outside of the circle.

Press the **Scanned** button on the upper right edge of the map frame. The indicator light will come on and stay on as long as that button is active. Part of the planet map will also turn black. This is the part of the planet's surface that has not been scanned by any of the ships in your fleet (only battlecruisers and troopships have the necessary scanners). Your ships automatically scan the surface as they pass over it. Notice that as your ship moves into any of the black area, the planet surface that is inside your ship's FOV is scanned and is shown on the map. The location of the cities on the planet will not be revealed until you have scanned them. More on them later.

Next to the Panel Transfer Control at the top of the panel is the Mission Elapsed Time (MET) indicator, which has been ticking along all this time. This shows the mission time in hours:minutes. You started at time 0:0. In the upper left corner is a pull-down menu button labeled **File**. Press and hold on this button to access the game functions, such as saving a game (disabled in the tutorial), exiting, or changing your default settings.

On the Panel Transfer Control, click on the button for the Orbital Control Panel, which is the one directly under the lit Planetary Control Panel button (i.e., press the lower left button). Your view will then pan down to the Orbital Control Panel. In the main display is a slowly rotating globe of the planet. The orbit track and position of your ship as it moves around the planet are displayed. Press the **Scanned** button to turn it off and notice that any remaining black areas on the globe are filled in.

Press the **PltData** button on the lower edge of the display frame. The view of the planet and orbit will be replaced by a faster rotating view of the planet with some information about its physical characteristics. Also shown is a picture of one of the native inhabitants with some information about them.

Press the **ShpData** button on the lower frame. Information about the nine ships in your invasion fleet will appear in the data display. The explanation of the data is given in the **Orbital Control Panel** section.

Press the **Orbits** button to restore the display of the rotating globe and orbit track. The currently selected ship is shown in the upper left sub-panel. It is your battlecruiser, the *Death Kiss*. Look below this to the two sub-panels labeled Orbit Type and Altitude. The lit buttons indicate the current orbit of the selected ship. Your ship is in a low inclined orbit. Press the **Equatorial** and **High** buttons. Press the **Exec Orbit** button to change your orbit to the new settings.

Whoa, what's this? The CommVid just appeared from the bottom of the screen, and it shows your Executive Officer confirming that the orbit change is underway. Press the **OK** button, and the CommVid will slide out of view. Notice that the orbit track of your ship has disappeared as it transfers to the new orbit. The track will reappear when the ship has settled into the new orbit.

In the Ships Display, click on the name of the troopship *Mastadon* with the right mouse button. Its orbit track and current position will appear in the orbits display, and the name in the ship list will appear in cyan. The currently selected ship (your ship) is shown in white. Press the right mouse button again on the name *Mastadon*. The ship and its orbit track will disappear. The right mouse button is for viewing ships and their orbits, while the left mouse button selects the ship for control.

At the bottom of the Ship Display are four buttons under the label Select All. There is one button for each type of ship. Pressing one of these buttons will display all ships of that type on the orbit display. Press the battlecruiser button on the left. No change, because your ship is the only battlecruiser and it's already shown. Press the destroyer button, which is second from the left. Four destroyers and their orbit tracks will appear on the display. Press the supply ship button to the right. The supply ship will appear in its equatorial

orbit. Press the rightmost troopship button. *Mastadon* will appear again. You can quickly remove all the other ships' orbits by pressing the **Deselect** button.

Go to the Panel Transfer Control in the upper right-hand corner and press the button to go back to the Planetary Control Panel (the upper left button). Notice that the FOV circle around your ship's symbol on the flat map is considerably larger than it was. That's because you moved to a higher orbit, from which you can see more of the planet's surface. Well, for our next exercise, we need the ship to be in a low orbit again, so go back to the Orbital Control Panel, select the **Inclined** and **Low** orbit settings, and press **Exec Orbit**. Then return to the Planetary Control Panel.

By this time, most of the planet has been scanned, and the four cities on the planet should be displayed in the northern hemisphere of the flat planet map (they are little red and black boxes). Click on the leftmost city with the right mouse button when it enters your ship's FOV circle. The city symbol will flash with yellow, showing you that it is being viewed. The CommVid will appear.

The CommVid shows a small map of the city with a village near its center. There are tracks that lead out of the village, and you can see a river. The data display shows that this is city #3, there is no zone number (because you have not selected it yet), and the status is red, meaning that it is occupied by the enemy. There are no enemy forces present (because this is a tech level 1 planet).

Press the **Full** button on the CommVid. A close-up of the city will appear over the planet map and message displays on the right side of the screen. This is the same view as the normal (i.e., non-zoom) zone maps you will see later in the Zone Control Panel. In this full map, you can see the details of the city which were lacking in the small CommVid map. The **Full** button on the CommVid changed to read **Restore** when the full map appeared. Now press this button to remove the full city map and restore the original planet and message displays.

Press the **Select** button on the CommVid. You have now selected this city as an invasion zone. Notice that the CommVid data now lists this city as Zone 1, and in the Planet Data display above the CommVid, the number of Inv. Zones has increased to one. Press the **Quit** button on the CommVid, which will then retract. Notice that the

symbol of the city you just selected has changed to a solid red block with a black center.

You can also select a city as an invasion zone without using the CommVid. Click on the next city to the right with the left mouse button. A message will appear in the Message Display saying that City #4 has been selected, and the city symbol will change to selected , as for the previous city. The mouse button will toggle the selection of the city on and off (go ahead, click the button twice on the city and see that the city is deselected and then selected again).

Now let's get nasty! Press the **Targeting** button on the Weapons Control Sub-Panel near the upper right part of the screen. The mode indicator changed from Invasion to Bombard. Notice from the left side of this sub-panel that the weapons selected are Torps. Now let's blow a city into oblivion. Click on the third city on the flat map (second city from the right) with the left mouse button. You'll (probably) hear the launching of the torpedo followed shortly by a flash on the city symbol. You will receive a message in the Messages Display that the city was destroyed, and the city symbol will change to one of destruction. Note that when you are in Bombard mode, the right mouse button still allows you to view the city.

Press the **Phaser** button on the Weapons Control Sub-Panel. The Torps indicator light will turn off, while the Phaser light will turn on. You have changed your weapon selection. In missions against planets with a full planetary shield, it is possible to select both weapons simultaneously for maximum bombardment against the shield. But that is overkill against cities, so you can only select one weapon type in this mission.

When the fourth (rightmost) city is outside your ship's FOV circle, click on the city symbol. The phasers will not fire, because unlike the torpedoes, they must have the target in a direct line of sight. Once the city comes into the FOV, click on the city again. The phasers will fire and the city will be destroyed. Press the **Targeting** button again to switch back to Invasion mode.

Now it's time to start the invasion, so press the top center button on the Panel Transfer Control. This will transfer you to the Invasion Control Panel. In the lower half of the screen are eight display sub-panels, one for each possible invasion zone. Only the first two are in use, because you only selected two invasion zones. Each of these shows the same miniature map that appears in the CommVid when

you view the city from the flat planet map. On the frame of each of these zone displays are three status light bars. The color indicates the zone status: red means its completely in enemy control, yellow means that both enemy and Krellan units are present, and green means that it has been captured by your forces and is in Krellan control. The flashing indicator bars indicate which is the currently active zone for your control.

Press the **View** button on the Zone 1 display. You will now be transferred to the Zone Control Panel, which is currently showing Zone 1. We'll examine this panel in detail later, but for now, transfer back to the Invasion Control Panel by pressing the top center button of the Panel Transfer Control again.

You can only start the attack on a zone by assaulting it with shock troops. Press the **Assault** button on the sub-panel on the upper right side of the screen. The CommVid will appear, showing the Krellan officer who is your Chief of Staff (CoS). He will ask you to which quadrant you want to send your shock troops. The teleporters used by assaulting shock troops are fairly inaccurate, and you can only localize their landing point to an area a quarter of the size of the zone. Press the **NE** button on the CommVid. This will target the shock troops to the northeast quadrant. The CoS will ask you how many shock troops (i.e., cohorts) should be sent. Press the **4** button on the CommVid number pad. The maximum number of cohorts that can be sent at once (called a wave) is nine. Press **OK**. The CommVid will retract and four shock troop cohorts will be teleported to the surface. They will not arrive immediately - it takes about 20 minutes (MET) for them to teleport. After this period has elapsed, four white shock troop symbols will appear in the Zone 1 map display, indicating their arrival. The flashing zone indicator light bars will change to yellow, indicating the zone ownership is contested.

Select the Zone Control Panel by pressing the top right button in the Panel Transfer Control (you previously achieved the same result by pressing the **View** button). You will see the symbols (white kneeling soldiers) for the four shock troop cohorts in the northeast quadrant of the zone map.

Near the top of the screen is a line of eight mini-zone displays. The blinking yellow light indicates the status of the zone (contested), and which zone you are presently controlling (this is also indicated by

the Zone number displayed on the top frame of the large zone map). White and red dots in the mini-zone map shows the position of Krellan and enemy units or controlled objects, but cannot distinguish the type of object or unit. Press the **Grh** button of the Zone 1 mini-map. This shows two bar graphs indicating the relative strength of the opposing forces in the zone. Red-colored bar indicates enemy forces (of which there are none on tech level 1 planets), while white-colored bar indicates Krellan forces. The bar on the left shows the number of combat units in the zone (scale is 0 to 20), while the right bar shows the relative strength of the fire power in the zone, on a scale of 0 to 100%. Since there are only Krellan combat units in this zone, the fire power bar is all white showing that the Krellans have 100% of the total fire power in the zone. Press the **Map** button, which replaced the **Grh** button when you previously selected the graph display. The mini-zone map will reappear.

Go to the large zone map and press the **Terr.** button on the top frame. The indicator light will come on showing that you are in terrain mode. All combat units (in this case your shock troop cohorts) in the map will disappear, showing you the terrain underneath. Press the **Terr.** button again to switch off terrain mode.

Click on the topmost cohort in the zone map. A cyan box will appear around the cohort symbol, indicating this is the currently selected unit. Information about the cohort will appear in the Unit Info Display on the left side of the screen. Information about any unit, piece of terrain or object you select (click on) will be displayed here. The possible orders that you can give that unit are displayed on buttons in the Orders Sub-Panel at the top of the screen.

On the top frame, press the **Zoom** button. The zone map will be magnified by a factor of four in the map display. This enlarged portion of the map will be centered around the current location of your selection box, which is currently on a shock troop cohort. The combat unit icons now give you information about the unit, including its identification number (legion/cohort for Krellan units), its current orders, its strength (manpower) and its current combat effectiveness. These icons are described in more detail in the **Zone Control Panel** section. These cohorts have the order shown as L for under local command. The current local zone command is Protect, which basically means that the cohorts will stay where they are in

In zoom mode you cannot view the entire zone at once, but you can scroll to view any part of the zone. Click outside the map display in the direction you want the view to move, and hold down the left mouse button until the scene shifts to where you want. Go ahead and try moving the view around. When you are finished, press the **Zoom** button again to return to normal [view] mode.

Click on one of the other shock troop cohorts and hold the left mouse button down. A brown indicator box will appear around the cohort. Keeping the mouse button depressed, drag the brown box to one of the city squares and release the button. You have now given that cohort a direct order to move to the city block where you released the indicator box. The pursuit order is done in a similar way, except the right mouse button is used. However, pursuit is useless here since there are no enemy units to pursue.

Let's change the local zone command, which we noted earlier is currently Protect. Press the **Command** button on the upper right side of the screen. The CommVid will appear and the zone commander will ask you for the new zone command. There are six choices shown on CommVid buttons. Refer to **Zone Control Panel** section for a description of them all. For new we will select the Capture command, so press the **Captr** button. The CommVid will retract and the Command indicator on the map frame will now show "Capture." The local command is now an offensive one, replacing the previous defensive command "Protect". Your shock troop cohorts will start moving towards the village to capture it. When all the village blocks have been captured (turned from predominantly red to white in color), the CommVid will reappear. The zone commander will announce that the zone has surrendered. Press **OK**. He will then ask if they should withdraw. Press **Yes**. The CommVid will retract and the Command indicator will read "Withdraw." Before long, all four shock troop cohorts will teleport back to the troopship.

Back up at the mini-zone displays, press the **2** button on the second display. Zone 2 will become the active zone, and its map will be shown in the main map display. Press the **Assault** button. Select the NW quadrant and send 3 cohorts in the assault wave using the CommVid. After the CommVid retracts, look at the sub-panel labeled ETA on the left side of the screen. This shows the estimated time of arrival (or completion) of the attack tasks: teleporting down an assault wave, building a landing pad, or sending down a drop ship. The Assault indicator shows a down arrow and a time. This

indicates that a shock troop assault is underway, and gives the estimated MET that they should arrive.

The three cohorts of shock troops will arrive somewhere in the northwest quadrant of the zone. Select (click with left mouse button) the cohort farthest away from the village. The unit order options will appear on the top sub-panel. Press **Cnstrct**. You have ordered that cohort to build a landing pad. The estimated time of completion shows in the Pad display on the ETA sub-panel. The icon indicating that a pad is under construction appears in the drop ship indicator of the Zone 2 mini-zone map display.

Press **Zoom**. Notice that the orders of the cohort you just commanded to build a pad shows "C" for construction, while the other shock troop cohorts show "L" for local. Press **Zoom** again to return to normal mode. Press the **Group** button. The indicator light lit up indicating Group mode is active. Click on the two cohorts not building a pad. A cyan selection box appears on both cohort symbols. You can select up to 25 units at a time to join the group and receive a common order. Press on the **Wthdrw** order button. All the units in the group received that order. In this case, the two shock troop cohorts will beam back. The other cohort should have finished the pad by now and will be standing guard next to it.

Select the Drop Ship Control Panel by pressing the bottom center button on the Panel Transfer Control. The lower half of this panel has displays for up to 12 troopships, showing the status of their drop ships. You only have one troopship, the *Mastadon*. The display shows its four drop ships. The currently selected drop ship is indicated by a white box around it. Click on a different drop ship and see the selection indicator move to that drop ship. Beneath the troopship display is an indicator window showing the time in hours:minutes that it would take a drop ship to reach the target zone (indicated near the upper left of the screen) from the current orbital position of the troopship.

Look now at the Load Settings sub-panel in the upper part of the screen. The current settings show Priority as "Full Strength", Unit Type as "Warriors" and that 6 cohorts are to load. Press the **Priority** button. The indicator now reads "Weakened." Press the button again to toggle back to "Full Strength." Press the **Unit Type** button twice. This will toggle the setting between "Warriors" and "Shock Troops."

Press any of the number buttons and see how the number of cohorts to be loaded changes. Finish by pressing the **6** button.

Press the **Load** button on the sub-panel near the center of the screen. This orders the currently selected drop ship to load according to the load settings. The six small boxes (called load boxes) below the selected drop ship icon will change to yellow. This indicates that six cohorts of warriors are aboard the drop ship. Now select a different drop ship by clicking on its icon. On the Load Settings sub-panel, change the unit type to "Shock Troops" and the number of cohorts to "3." Press Load, and three green boxes will appear below the drop ship icon, indicating that three shock troop cohorts are aboard. Remember, yellow boxes for warriors, green boxes for shock troops. Now press the Unload button. The shock troop cohorts will unload and the load boxes will be empty.

Near the top of the screen is the Zones Status Sub-Panel. This has a small display for each of the eight invasion zones. You can change the target zone by pressing the numbered button of the new target zone. Each of the small zone displays has a landing pad/drop ship indicator. The current target zone is 2, where we built a landing pad. This is confirmed by the landing pad icon displayed in the landing pad/drop ship indicator. The **AR** button is to set Auto-Reinforce mode, which we will ignore here.

Press the **DROP** button to launch the selected drop ship towards the target zone. The drop ship icon in the troopship display is replaced by a yellow down arrow and a "Z2." This indicates the drop ship is descending towards Zone 2. The landing pad/drop ship indicator for Zone 2 in the Zones Status sub-panel will show an icon depicting a ship above the landing pad. This means a drop ship is in transit to the zone.

Go to the Zone Control Panel using the Panel Transfer Control (upper right button). The ETA display show a down arrow and time for the drop ship. Once the time in the MET indicator on the top row reaches the ETA value, the drop ship will arrive on the pad. The six warrior cohorts (white tank symbols) aboard will automatically disembark and surround the drop ship. Click on the drop ship, and press **Zoom**. Notice that the warrior icons are similar to the shock troop icons.

Go to the Data Control Panel by pressing the lower right button of the Panel Transfer Display. The main display is currently showing the most recent messages that have appeared in the Message Displays. On the Message Filter Sub-Panel, press **All Off**. All the indicator lights on this sub-panel will go off, and all the messages will clear from the data display. Press the **Zone 2** button. This allows all the messages originating from Zone 2 to be displayed (the indicator light on the button will turn on), but all other messages are filtered out. Now press **All On**. All the messages will now be displayed.

Press the **Legion Data** button on the lower frame of the data display. This will replace the messages in the display with information about the legions attached to your current invasion fleet. Press the **Msn Status** button. This will information about how well you are doing. The time left until the deadline, the number of cities captured, etc. are displayed.

Now let's look at the Surveillance Cameras Sub-Panel. You have three monitors which allow you to look at various areas of the ship through closed-circuit monitoring cameras. Press the ↑ or ↓ button on any of the monitors to change the viewing channel (i.e., active camera). The circular knobs above the channel selection buttons are for monitor adjustments and should be ignored. The scenes shown have no effect on your mission.

Return to the Zone Control Panel. Press the **Command** button. When the CommVid comes up, press **Stand** to select a standard offensive strategy for the zone. The cohorts will now move out heading for the village. Press **Zoom** to return to normal mode. If the indicator box is not still on the drop ship, then click on the drop ship to put it there. On the Orders sub-panel, press **Launch**. The empty drop ship will soon launch and head back to the troopship. Go to the Drop Ship Control Panel again (remember, bottom center button). Notice that there is an up arrow in the troopship display showing that the drop ship is returning. Sometime now the CommVid will appear and the zone commander will inform you of the zone's surrender. Your CoS will then appear announcing the planet has been conquered. Well done! See, that wasn't so difficult. Next time you're on your own.



INVASION COMMAND CONSOLE

You will conduct your invasion of the enemy planet from the Invasion Command Console. This Console is located in the Battle Control Center of the battlecruiser that is the flagship of the Krellan invasion fleet. The console consists of six panels, laid out as shown in Figure 4. Each panel consists of displays (monitor or readout screens) and push button controls, which may be grouped together by function into a *sub-panel*. Sub-panels are usually distinguished by being separate metal plates within the panel, that are held in place by screws. These sub-panels usually have their function labeled, if there is enough space.

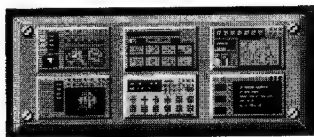
Planetary Control Panel	Invasion Control Panel	Zone Control Panel
Orbital Control Panel	Drop Ship Control Panel	Data Control Panel

Figure 4: Invasion Command Console Layout

CONSOLE DISPLAYS AND CONTROLS

The following controls and displays are available or applicable on each of the console panels.

Panel Transfer Control



Transfer between the panels is normally done using the Panel Transfer Control. This control appears in the upper right corner of each panel, and consists of six buttons, which are miniature

representations of the console panels. To get to any panel from your current panel, just click on the button showing the desired panel. The game will freeze momentarily while your view transfers to the new panel.

Mission Elapsed Time Display



This display in the upper right-hand area of each panel shows the current Mission Elapsed Time (MET) in hours:minutes. Note that SL is run in "real-time" and not in turns. While you are making and executing decisions, the world and the invasion continue on. The correlation between MET and real world time is about 60:1. Thus every second that passes in your real time is equivalent to one minute in game time. When you only have ten hours left to complete your mission before the deadline, you will receive a TIME WARNING message, and the MET display background will turn yellow. When you reach only five hours left, you will receive a TIME CRITICAL message, and the MET display background will turn to red.

Communications Video Device (CommVid)



When you choose to give certain orders, or when an important incoming message is directed to you, the CommVid will appear. This is a device consisting of a small video display and push-button controls, which slides into view from the bottom of the screen.

The video display shows the individual to whom you are speaking. Below the video display area is a message readout display, where the words spoken by the individual are shown. Below this readout display are some answer buttons. These buttons are changeable. They will display the appropriate response choices for queries made by the speaker. On the right side of the CommVid are the numbers 0 through 9, to enter numbers for answers (where appropriate), and the following buttons:

Quit Ends the interchange session on the CommVid. If you were in a commanding sequence, it will cancel the command selection. After pressing this button, the CommVid will retract off the screen.

Two other control buttons will appear on the CommVid as appropriate:

OK Acknowledges the currently displayed message or enters your number response. If this is the last message of the current interchange, then the CommVid will retract off the screen.

Back Removes your last keystroke in an answer.

FILE Pull-Down Menu



This menu appears on in the upper left corner of each panel, and provides control over the game and computer parameters rather than over the mission.

The options are:

Save Saves the game in a file named SLSAVE.## where ## is your player number. All saved games are put in the SL/SAVE sub-directory. After saving the game, the mission will continue. You need to select the Exit option (see below) to exit the game. You can resume a saved game by starting up SL and selecting the Resume game option from the Sign-on Options menu. The save function can also be accomplished by pressing the keys [Alt][S].

Freeze This freezes all execution and time (MET) in the game. Press click on Freeze again to resume the game. You can transfer panels, etc. while the game is frozen, but none of the other controls are active.

System Selecting this option will freeze the game and bring up a system screen. The current system settings are displayed and you can change them as desired, except for the Sound Board setting. The setting parameters and how to change them was described in the **Sign-On Options** in the **SETUP** section.

Exit Exits you out of the game, back to DOS. This can also be accomplished by pressing the keys [Alt][X].

Planetary Control Panel

The Planetary Control Panel (Figure 5) is the first screen you will see at the Invasion Command Console. This panel gives you the tools to identify, select and prepare sites on the planet for your invasion assaults.

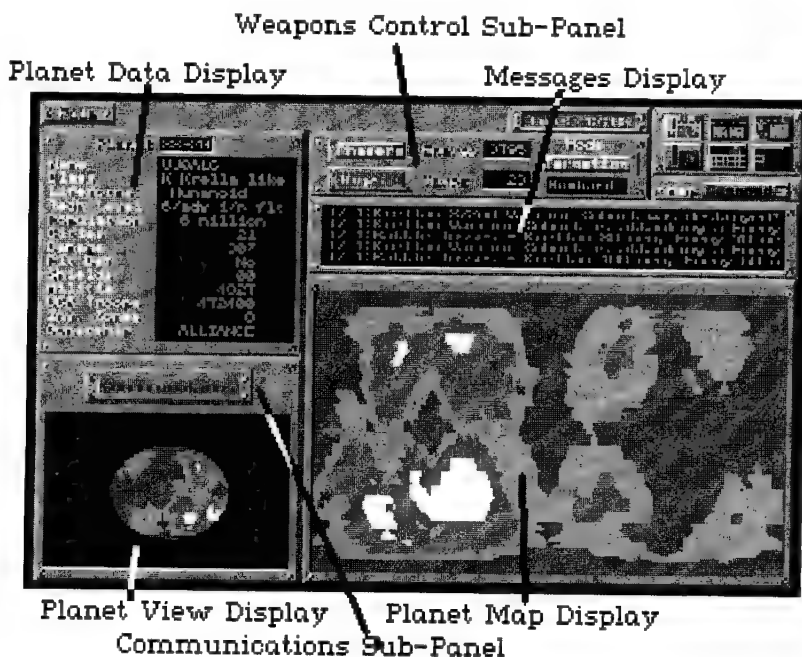


Figure 5: Planetary Control Panel

The Planetary Control Panel consists of the following sub-panels/displays:

Planet Data Display

This displays basic information about the planet you are orbiting. More detailed information can be obtained from the Orbital Control Panel.

Planet View Display

This displays the rotating planet, as seen from a point in space beyond your ship. Your ship position on the planet's surface is always at the center of this rotating globe.

Planet Map Display

This displays a flat map of the planet's surface, showing the major terrain features (oceans, seas, lowlands, plateau, mountain ranges, etc.). Your ship's current position on the ground track of its orbit is displayed, as well as a circle of dots centered on your ship showing the range of your current effective field-of-view (FOV). Potential invasion targets, called cities, are also shown on this map as they are scanned.

Messages Display

This displays messages, reports and input responses.

Weapons Control Sub-Panel

This sub-panel provides information about your weapon and power systems, and allows you to control weapon selection and targeting modes.

Communications Sub-Panel

This allows you to communicate with headquarters, the planet, and the other ships in the invasion fleet.

DISPLAYS AND CONTROLS

Planet Data Display

The planet data display shows the following data about the planet:

Planet ID - The identification number of the planet as assigned by KHQ.

Name - The native's name for the planet.

Class - The type of planet (Krell-like, Aquatic, Desert, Barren, Ice).

Lifeforms - The biological type of the dominant native inhabitants (Humanoid, Mammalian, Reptiloid, Insectoid).

Tech Level - The technology level of the natives from 1 (primitive nomads) to 7 (highly advanced). See **Pre-Command Briefing**.

Population - Estimated number of native inhabitants.

Cities - Number of potential invasion targets.

Damage - General damage level to the planet's surface, in percent.

Plt Def - Planetary defense phasers (PDPs), "No" or "Yes." If present, you orbiting ships can come under attack from the planet's surface.

Shields - Current strength of planetary shields in energy units.

Militia - Number of native troops on the planet.

UGA Troops - Number of UGA Regular Forces troops on the planet.

Inv. Zones - Current number of cities that have been selected as invasion zones. Maximum is eight.

Ownership - "Neutral" if not a UGA planet, "UGA" if it is a UGA colony or member world, "Contested" if the invasion is underway.

Planet Map Display Controls

VIEW CITY Mouse Button

Pressing the right mouse button while pointing to a city on the planet will bring up the CommVid. A small map of that city is shown along with the following important data about the city:

City Gives the number of the city. When the planet is first mapped and the target cities are identified, they are given a number. This number is unrelated to the zone number.

Zone When cities are selected as an invasion zone, they are given a zone number between 1 and 8. This number is unrelated to the city number, and will be lost if the city is deselected.

Condition Gives the current condition of the city (Red means occupied by enemy, Yellow means contested with both Krellan and enemy forces present, and Green means conquered by the Krellans).

Units Number of enemy fighting units (militia and UGA regular brigades, forts, etc.) present in the city.

F Pwr The combined fire power of the enemy units in the city. The fire power is the combined measure of their strength (manpower), combat effectiveness (fatigue, etc.), and strike effectiveness (quality of the unit based on eliteness, experience, and equipment).

The CommVid also provides the following control buttons:

OK Exits you from the viewing CommVid, which will then retract.

Select Selects the city being viewed as an invasion zone. If the city is already selected, there will be no response. If you already have selected a

full complement of invasion zones, a message to that effect will appear in the message area of your Planetary Control Panel.

Full Provides a full size map (equivalent to normal mode zone map) of the city being viewed. While the full size map is up, the label on this button will change to **Restore**. Press it to remove the full size zone map and restore the planet map.

Viewing the cities from the planet map should help you decide which cities to select for invasion.

ZONE SELECTION Mouse Button

Pressing the left mouse button while pointing to a city on the flat planet map will select/deselect that city as in invasion zone. The city symbol will change to a solid block with a center dot for selected, or to an "X" within a block for deselected. The number of invasion zones currently selected is shown in the Planet Data Display. The maximum number that can be selected at once is eight.

MAP SCANNED Push Button

When a battlecruiser or troopship orbits the planet, its sensors and computers perform a detailed scan and analysis of the planet surface to locate potential invasion targets. As a potential target (i.e., "city") is identified, it will appear on the planet map. To help you visualize how much of the planet's surface has been scanned, you can press this button. Any unscanned areas of the planet will be blackened out on the map. The small rotating globe in the lower left display will not be affected. While the scanned switch is active, the switch indicator light will be on. This same control is available in the Orbital Control Panel to show the scanned areas on the globe map.

Weapons Control Sub-Panel

The following toggle push buttons allow you to select the weapon to be used for planetary bombardment:

Phaser

When phasers are selected (the indicator light is lit), your ship will use phasers against the indicated target when weapons are fired in Bombard

mode (see Bombard following). The energy used for each shot is 100 units (the current ship energy level is shown on this same display panel). You can only fire phasers at a target city when it is within your field-of-view (i.e., within sight of your ship).

Torps

When torps are selected (the indicator light is lit), your ship will launch a photon torpedo against the indicated target when weapons are fired in Bombard mode (see Bombard following). You do not have to be within sight of your target to use torpedoes. The number of torpedoes you have left is shown on the Weapons Control panel.

TARGETING Push Button

Press this button to select the desired targeting mode to be used on the planet map. The current targeting mode is shown in the adjacent display window. The two targeting modes available are:

Invasion While in this mode, pressing the left mouse button while pointing to a city on the planet will select or deselect that city as an invasion zone. A maximum of eight invasion zones can be selected at one time. A deselected city (initial condition) is shown as a black "X" in a red box. The box color indicates the ownership. Red is for enemy or contested, while white is for Krellan ownership. When a city is selected, the city symbol becomes a solid box with a dot in the center. A destroyed city is shown as rubble. Invasion is the default targeting mode.

Bombard While in this mode, pressing the left mouse button while pointing to a city on the planet will bombard the city with whichever weapon is selected in Weapons Control. You will see the flashes on the city as it is hit, and the result of the bombardment will be reported to you. Any part of the city not protected by shields will be destroyed by the first shot. The city shield can also be penetrated with the resultant destruction of the whole city, but it may take several shots. However, remember that high tech level enemies can shoot back!

Communications Sub-Panel

This option controls the communication between you and parties not directly part of your invasion. Pressing the communications button brings

up the CommVid with a list of following three possible parties with which you can communicate.

Planet

This allows you to communicate with the planetary government, if the planet is of at least technology level four. Lower technology level planets haven't developed radio yet, so communicating with them would be futile. The following communication messages can be sent:

Contact This makes an initial contact with the planet. From their response, you may be able to judge how prepared they are for your attack or how aggressive they might be.

Surrender This orders the planetary government to surrender. Their response may determine how quickly you can bring the conquest to a conclusion.

KHQ

This is your headquarters. The following messages can be sent:

Help This requests KHQ to dispatch additional troopships with escorts to join your invasion fleet. If they grant your request, the Admiral at KHQ will tell you how long it will take the reinforcements to arrive. Do not send this message unless absolutely necessary. KHQ determined the size of your initial fleet based on their assessment of what forces should be needed to conquer the planet. They will not look kindly upon you trying to tell them they were wrong in their assessment, or that you are admitting that you are not a good invasion commander.

Supplies This requests KHQ to dispatch an additional supply ship to join your invasion fleet. If they grant your request, KHQ will tell you how long it will take for the ship and its escort(s) to arrive. You will only receive a mild reprimand for requesting additional supplies.

Fleet

This allows you to communicate with all the ships of your fleet simultaneously. The following communication messages can be sent:

Bombard This orders all your warships with weapons (battlecruisers and destroyers) to bombard the planet on a continuous basis. If the planetary shield is up, the bombardment will be directed against it. If the planetary shield is down, the bombardment will be directed against the planet in general, but not against the identified cities and zones. These are left for your personal attention. The result of this general bombardment is to increase the damage level to the planet, which will have an effect on the planet morale, but will reduce your overall mission rating and rewards for this planet. If you have ordered a bombardment against a planet with planetary shield up, once the shield has been destroyed, the bombard order will be automatically canceled. This is to prevent inadvertent damage to the planet. If you do want the planet's surface bombarded, then you'll have to order the bombardment again.

Halt This orders your warships to stop their bombardment of the planet, after it has been started using the previous command. This command is issued automatically after the planetary shields have been destroyed.

Wtdrw Orders your entire fleet to withdraw from the planet. This means that you are giving up on completing the invasion by the deadline, and want to minimize your losses (or maximize your rating). You will be returned to Imperial Krellan HQ for an evaluation and critique of your mission. This is a better option than just exiting the game and starting a new invasion. In that case, you will be credited with zero rating for the mission you abandoned.

Orbital Control Panel

The Orbital Control Panel (Figure 6) provides detailed data about the planet, and the ships of your invasion fleet. You can control the orbits of your ship and the other ships from this panel.

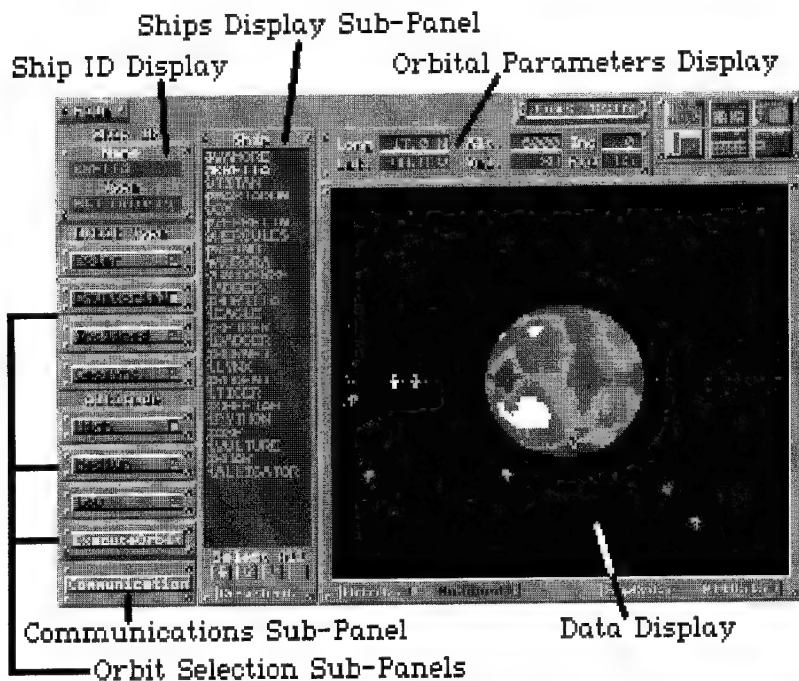


Figure 6: Orbital Control Panel

The Orbital Control Panel consists of the following sub-panels and areas:

Data Display

This displays user-selectable information about the orbits of the invasion fleet, the status of the ships in the fleet, the scanned coverage of the planet, and more detailed data about the planet itself.

Ships Display Sub-Panel

This displays the name and type of each of the ships in your invasion fleet. It also allows you to select which ships should be viewed in the Data Display (orbits view) or should be controlled for orbit modification.

Ship Identification (ID) Display

This displays the name and type of the ship currently selected for orbit control. This defaults originally to your ship.

Orbital Parameters Display

This displays the basic information, along with the orbit type indicated in the Orbit Selection Sub-panel, which defines the orbit of the currently selected ship.

Orbit Selection Sub-Panels

This displays and allows you to change the orbit type and altitude of the currently selected ship.

Communications Sub-Panel

This allows you to communicate with headquarters, the planet, and the other ships in the invasion fleet.

DISPLAYS AND CONTROLS

Data Display

ORBITS DISPLAY Push Button

Pushing this button will display the rotating planet with selected orbits and ship positions in the Orbital Control Display. When this mode is active, the indicator light is on. This is the default mode.

SCANNED Push Button

See the description in **Planet Data Display Controls** section.

SHIP DATA DISPLAY Push Button

Pushing the **ShipData** button will display information about the ships in your orbiting invasion fleet in the Orbital Control Display. When this mode is active, the indicator light is on. The following data are provided for each ship:

NO - The number of the ship in your fleet.

NAME - The name of the ship.

TY - The ship type, as designated by the ship icons (see Appendix B).

ENGY - Total energy units available to the ship for weapons, shields and ship systems. When a ship's energy level reaches 0, it is destroyed.

P - Phasers available ("Y" for yes, and "-" for no).

TRP - Number of torpedoes left.

CRW - Number of crew left alive.

D - Damage level ("-" for none; "L" for low, 1-25%; "M" for medium, 26-74%; "H" for heavy damage, 75-99%). When a ship's damage level reaches 100%, it is destroyed.

ORBIT - Current orbit altitude and type expressed as A:TYP, where A is the altitude (H for high, M for medium, L for low), and TYP is the orbit type (Inc for inclined, Geo for geosync, Pol for polar, Equ for equatorial).

ORDERS - Current orders that the ship is operating under:

Wait: The ship is under standard local command. This is the normal mode.

Bombard: The ship has been ordered to bombard the planet. This order only applies to warships (battlecruisers and destroyers).

Transit: The ship is traveling to the new orbit you ordered it to.

PLANET DATA DISPLAY Push Button

Pushing the **PltData** button will display detailed information in the Orbital Control Display about the planet you are orbiting, including a rotating globe of the planet and a picture of the type of native inhabitant. When this mode is active, the indicator light is on. Most of the information shown was explained

Ships Display Sub-Panel

VIEW SHIP ORBIT Mouse Button

You can view the orbit of any of the ships listed in the Ship List Display by pointing to the name of the ship desired and clicking the RIGHT mouse button. The orbit of that ship will be displayed (if the data screen has orbit mode active). The current position of the ship is marked by the ship symbol (which appears next to the ship name in the ship list). The name of the ship being viewed is highlighted. You can deselect the viewing of the ship's orbit by clicking on the ship name again with the right mouse button. There is no limit to the number of ships you can select for orbit viewing. However, more than about ten at once will be confusing and of limited use.

SHIP SELECTION Mouse Button

You can view details of the orbit, or control the orbit, of any of the ships listed in the Ship List Display. Simply point to the name of the ship desired and clicking the **LEFT** mouse button. The ship's name will be highlighted, the name and ship type will appear in the displays above the orbital control buttons, its orbit will be shown on the orbital display (even if it was not already there), and the orbital control button indicators and orbital parameters display will show the current data and settings of its orbit. Once the ship has been selected, you can change its orbit, as described in the Orbital Settings Control section. To deselect the ship, click the left mouse button again on its name in the Ship List Display, or select another ship in the list. When deselected, the ship's name highlight will be downgraded to the "view orbit" highlight.

Orbit Selection Sub-Panels

The orbit selection control is divided into three sub-panels.

ORBIT TYPE SUB-PANEL

The type of the currently selected ship's orbit is indicated by the lit indicator light on the selection buttons. To select a new orbit type, just press the button of the desired type. The newly selected orbit will not go into effect until the order is executed using the **Orbit Execute** push button. The available orbit types are:

Polar

This orbit type produces a ground track that goes over both the north and south poles of the planet. This is the only orbit type that will ensure that the ship will eventually travel over the entire surface (assuming the planet is rotating). This orbit is a good one initially for your battlecruisers and troopships to allow the planet to be scanned as soon as possible.

Equatorial

This orbit type produces a ground track that follows the equator (horizontal center) of the planet. The ship will always orbit from west to east. This orbit is a good one for your supply ships, which do not interact with the planet at all.

Inclined

This orbit type produces a ground track that looks like a sine-wave centered about the equator, i.e., it is a wave form that alternately goes equal distances north and south of the equator headed from west to east. The angle of inclination is the angle between the orbit track and the equator as it crosses the equator. The inclination is set to 35°. This means that the ship will travel in a band around the planet between latitude north and south of the equator equal to 35°.

Geosync

The geosynchronous orbit type produces a ground track that stays on the targeted point on the planet. Note that a true geosynchronous orbit will only do this above a point on the equator. For a point on any other latitude, the ground track will be a figure "8" with one of the loops centered about the point. The SL geosynchronous orbit off the equator is thus not a true non-propulsive orbit. It would instead require the continual application of a propulsive force. This orbit is an excellent one to station troopships above the invasion zones they are supporting.

ORBIT ALTITUDE SUB-PANEL

The altitude range of the currently selected ship's orbit is indicated by the lit indicator light on the selection buttons. To select a new altitude range, just press the button of the desired altitude. The newly selected orbit will not go into effect until the order is executed using the Orbit Execute push button. The available orbit altitude ranges are:

High

The high orbit is between 10,000 and 30,000 km altitude. In SL, a high orbit (other than geosynchronous) takes 90 minutes of MET (90 seconds real-time) to complete one revolution around the planet. The advantages and disadvantages of a high orbit are:

Advantages

- Gives the largest field-of-view coverage of the planet's surface. This allows phaser firing, shock troop assaults, and viewing of cities from the maximum possible range.
- Chance of being hit by planetary defensive fire is less.
- Any hits on your ships by planetary defensive fire will be weaker.

- Keeps cities in view for long periods.

Disadvantages

- The resolution of your scanners will be low. This means that you cannot get a detailed map of cities that come within the ship's field-of-view, and will not be able to determine the presence or location of any city defensive shields.
- Your weapons are not as effective, because your phaser hit strength is lowest, and torpedoes take longer to reach the planet's surface.
- It takes longer for drop ships to travel between the troopship and the surface.
- Assaulting shock troops will suffer higher losses due to beam dispersion and interference from the planetary radiation belts.
- Takes longest time to travel around the planet.

High orbits are used initially by battlecruisers and troopships attacking high technology planets to provide them maximum protection against the planetary defenses. Supply ships always are initially in high orbits for protection from the planetary defenses and to provide maximum contact with the other ships in the fleet.

Medium

The medium orbit is between 1,000 and 10,000 km altitude. In SL, a medium orbit takes 60 minutes of MET (60 seconds real-time) to complete one revolution around the planet. The advantages and disadvantages are in between those of the high and low altitudes. Note that the medium altitude orbit, like the high orbit, does not produce high resolution scanning needed to obtain detailed city maps or locate city shields. You must be in a low altitude orbit for high res scanning.

Medium orbits are used initially by escorting destroyers to provide a shield between the planet and the orbiting troop and supply ships.

Low

The low orbit is between 100 and 1,000 km altitude. In SL, a low orbit takes 30 minutes of MET (30 seconds real-time) to complete one revolution around the planet. Note that this is faster than would occur while orbiting the Earth, but this value has been selected to enhance gameplay. The advantages and disadvantages of a low orbit are:

Advantages

- The resolution of your scanners will be high. This means that you can get a detailed map of cities that come within the ship's field-of-view, and will be able to determine the location of any city defensive shields.
- It takes less time for drop ships to travel between the troopship and the surface.
- Assaulting shock troops will suffer fewer losses due to beam dispersion. The low orbit is below any planetary radiation belts.
- Traveling around the planet takes less time than for other altitude orbits.
- Your weapons are of maximum effectiveness, because your phaser hit strength is highest, and torpedoes take less time to reach the planet's surface.

Disadvantages

- The field-of-view coverage of the planet's surface is most limited at this altitude. This means that the ship has to be close to the target city for phaser firing, shock troop assaults, and viewing. Cities are kept in view for shortest period.
- Chance of being hit by planetary defensive fire is greatest.
- Any hits on your ships by planetary defensive fire will be stronger.

Low orbits are used initially by battlecruisers attacking low or medium technology planets to provide them maximum effectiveness against the planetary targets.

ORBIT EXECUTION SUB-PANEL

Once a change has been made in the orbit settings of the selected ship, the new orbit commands will be executed and the new orbit become effective when the **Execute Orbit** button is pressed. You will receive confirmation of the orbit commands being sent. The orbit track of ships transferring from one orbit to another will not be shown on the Orbital Display, just the current position of the ship.

Communications Sub-Panel

See the description in the **Planetary Control Panel** section.

Orbital Parameters Display Sub-Panel

This provides detailed information about the orbit and position of the currently selected ship. The parameters are:

Long, Lat These are the *longitude* and *latitude* coordinates on the planet's surface directly below the orbiting ship. Longitude is measured from 0 to 360 degrees, where the 0° longitude is the vertical line along the left edge of the flat planet map on the Planetary Control Panel (see Section 3.1.1.). The latitude varies between -90° at the south pole, and +90° at the north pole, with 0° along the equator.

Alt This is the *altitude* of the ship above the planet's surface in kilometers.

Vel This is the *velocity* of the orbiting ship along its orbital path in kilometers per second (km/sec).

Inc This is the *inclination* of the orbit of the ship in degrees. The inclination is the angle between the orbital plane of the ship and the equatorial plane of the planet. In other words, it is the angle between the ground track line of the orbit and the equator where the orbit track crosses the equator. An equatorial orbit has an inclination of 0°, while a polar orbit has an inclination of 90°. These are the two extreme cases. Actually, inclinations of more than 90° are possible. Orbits with inclinations between 90° and 270° will be retrograde (i.e., move from east to west instead of west to east as is normal in SL), while orbits with inclinations between 270° and 360° are just variations of the normal direction orbits.

Per This is the *period* of the orbiting ship in minutes of MET. This is how long it takes the ship to complete one orbit around the planet. Note that for most orbits, the point on the planet's surface below where the orbit starts and where it finishes one revolution will be different, because the planet is rotating while the ship is orbiting. The period for most high orbits is about 90 minutes, for most medium orbits is about 60 minutes, and for most low orbits is about 30 minutes.

Invasion Control Panel

The Invasion Control Panel (Figure 7) is where you will initiate the assault and provide overall control of your eight invasion zones.

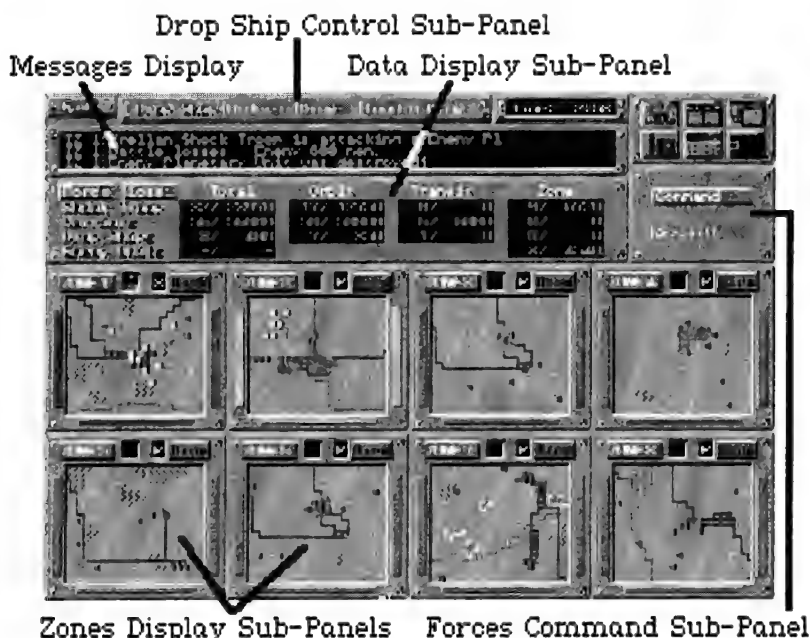


Figure 7: Invasion Control Panel

The Invasion Control Panel consists of the following sub-panels and areas:

Messages Display

This displays messages, reports and input responses.

Data Display Sub-Panel

This displays a summary of the strength (or losses) and allocation of the Krellan and enemy troops.

Forces Command Sub-Panel

This sub-panel provides the means to give orders to your assault shock troops standing by in orbit and invasion zone commanders.

Drop Ship Control Sub-Panel

This sub-panel provides the means to give orders to your currently selected drop ship, based on the settings shown in the Drop Ship Control Panel (see next section). For more detailed control of the drop ships, you need to use the Drop Ship Control Panel.

Zones Display Sub-Panels

These eight sub-panels provide a low resolution map, information about the landing pad or drop ship status, and the current standing orders to the zone commanders for each of the invasion zones.

DISPLAYS AND CONTROLS

Data Display Sub-Panel

CONTROLS

The following push buttons allow you to select the type of data shown in the data display area of the Invasion Control Panel:

FORC (Forces) Shows the current total number of Krellan and enemy troops alive on the planet or in orbit in the data display. It also displays the number for the currently selected zone. This is the default setting.

LOSS (Losses) Shows the losses that have been suffered so far by both the Krellan and enemy forces (both total and in the currently selected zone).

DATA DISPLAY

Data on the forces (or losses) are displayed for Krellan shock troops, warriors, and drop ships, and data for enemy troops are displayed according to the following breakdown:

Total Total for all forces (or losses) involved with the battle for the entire planet (not just in the invasion zones). For the enemy forces, this shows the current best information of the numbers. The actual number of troops on the planet may be higher.

Orbit The total number of forces (not losses) in the troopships currently orbiting the planet. There are no enemy units in orbit.

Transit The total number of forces (not losses) in transit (by drop ship or assault teleporters) between the troopships and the planet surface. There are no enemy units in transit.

Zone Total for all forces (or losses) involved in the currently selected invasion zone. Unlike for the Total display, the numbers for the enemy in the zone are accurate.

Forces Command Sub-Panel

COMMAND Push Button

This option brings up the CommVid with a list of six command choices which are directed to the on-site commander of the currently selected invasion zone, i.e. they affect all troops within the zone. The first letter of the selected command appears on each of the small zone maps in the Invasion Control Panel, and the entire word appears above the zone map in the Zone Control Panel. The command choices are as follows:

Direct All cohorts in the zone will maintain current positions and wait for further orders. This cancels previous orders and clears the way for you to order individual cohorts.

Standard Cohorts will do a combination of Capture and Reduce commands (see below). This is the usual choice for most invasion situations.

Capture Cohorts' primary objective is to capture cities, factories, etc. They will eliminate enemy units as necessary for completing this task. A city, space port or industry block is captured when one of your cohorts occupies it. It remains in Krellan control even if the occupying cohort moves out. It takes an enemy unit to subsequently move onto the block for it to change ownership. The control of these blocks is indicated by the predominant color. Red means enemy control, while white means Krellan control.

Reduce Cohorts' primary objective is to destroy enemy units. The capture of anything is incidental.

Protect Cohorts will remain at or near their current location, repelling any attacks. This command is particularly useful for protecting landing pads with a mobile defense while waiting for the arrival of the drop ship.

Withdraw Warrior cohorts will move to the landing pad to board (or wait for) a drop ship. Once the drop ship is full, or all the remaining warrior cohorts have been loaded, the drop ship will automatically launch. If the landing pad is destroyed, the warriors will fight to the death, preferring glory to surrender. Shock troop cohorts will move to a clear area (not underneath a city shield and not adjacent to any enemy units) and teleport up to their troopship. Once a zone is captured, this command is used to bring home the victorious troops. Withdrawn troops are available for re-deployment from their troopships, but may be weakened due to losses and fatigue.

ASSAULT Push Button

You use the Assault option to actually initiate the invasion of the planet. It controls allocation and targeting for your shock troop cohorts to teleport directly to the planet's surface in the currently selected invasion zone. The assault by shock troops is somewhat akin to the use of paratroopers on Earth during the 20th century. They are lightly armed elite troops who have the element of surprise. Their deployment is only limited by two factors. They cannot teleport through city shields, and they are likely to suffer horrendous casualties if teleported onto large bodies of water.

Before selecting the Assault option, view the selected zone (see View command), and decide in which quadrant (North East, North West, South East, or South West) of the zone you want the shock troops to arrive. That is as precise as you can get in their targeting. Consider the following, in order of priority:

1. Location of city shield(s), if any. See how much terrain is available in the quadrant that is not covered by a shield.
2. Location of ocean or lakes. Cohorts teleporting into quadrants with a large amount of water can suffer heavy casualties or be lost entirely!
3. Location of enemy units, particularly UGA Regulars. Your shock troops suffer from temporary disorientation immediately after teleporting, and their combat effectiveness will only be 50% of normal. This will gradually increase as they recover, but it is

probably wise to land them away from strong enemy units, or they will be at a disadvantage.

There are other considerations of a more strategic or tactical nature that are discussed in the chapter **Invasion Checklist**.

After having viewed the current zone and decided to which quadrant you want to send your shock troops, select the Assault option. The CommVid will appear. Select the quadrant (NE, NW, SE, SW), then the number of shock troop cohorts to be teleported (1 to 9). The maximum number of cohorts that can be sent in a single wave is nine. It takes approximately 20 minutes MET for the shock troops to arrive in the zone (actual time depends on the altitude and distance of the nearest troopship). Note that you do not have to wait for these shock troops to land before sending others down to any of the eight invasion zones.

Drop Ship Control Sub-Panel

ORDERS Push Button

This provides a means to quickly load and unload drop ships. More detailed control of the drop ships, including abort or recall capability, is done at the Drop Ship Control Panel. Unless prompted otherwise, the current settings shown in the Drop Ship Control Panel are assumed. When this option is selected, the CommVid will appear with the following command options:

Board Legionaries have to be ordered to board a drop ship. As many as six cohorts of warriors or shock troops and their equipment can be loaded onto a single drop ship. When this option is selected and your executive officer will query you about the type (warriors or shock troops) and number (1-6) of cohorts to be loaded onto the next available drop ship. In most cases, where you expect a good battle in the targeted zone, you will select six cohorts of warriors to board.

Unload This command is used to unload a drop ship so that an empty drop ship can be sent down to pick up withdrawing legionaries, or to change the type or number of legionary cohorts on board.

Info Displays the current status of the drop ship (i.e. if it's loaded or not, and with how many warrior or shock troop cohorts).

DROP Push Button

Sends a drop ship to the currently selected zone. If you are intending to send legionaries down, be sure to first board the drop ship, using the Board command described under the Drop Ship push button. If you are launching the drop ship to pick up withdrawing legionaries, be sure it is empty. The load status of the currently selected drop ship is indicated by the light on the push button. Lit means the drop ship is loaded (as much as possible according to the current load settings), while unlit means it is empty.

LOAD N DROP Push Button

This button provides a quick way to load a drop ship according to the current load settings, and to immediately deploy it to the currently selected zone. If you intend on doing this again for the same zone, consider using the Auto-Reinforce command for the zone (available on the Drop Ships Control Panel) instead.

Zone Display Sub-Panels

Status Indicators

On the frame of each zone map display are three colored status indicator bars. The bars of the currently selected zone flash. The color of the bars indicates the current zone status. Red means it is occupied by the enemy. Yellow indicates that the zone is contested with both enemy and Krellan units present. Green indicates that the zone had been captured and is in Krellan control.

Zone Map

Each of the zone displays provides a miniature low resolution map of that zone. This map shows the major terrain features (rivers, roads, urban areas, etc.) as well as the location of both Krellan and enemy units, although it is not possible to distinguish all of the unit types. The display is updated in real-time to show changes in the status or position of the forces.

Command Indicator

On the upper frame of each zone map display is a single letter display which shows the current active command for the zone ("P" for protect, "S" for standard, "C" for capture, "R" for reduce, and "W" for withdraw).

Drop Ship/Landing Pad Indicator

On the upper frame of each zone map display is a small display that shows the current status of the zone with respect to landing pads and drop ships. The following indicator icons are used:

Blank	No landing pad present or under construction
	Landing pad(s) under construction
	Empty landing pad in zone - no drop ship on way
	Drop ship on way to zone
	Drop ship on landing pad

Each of the eight zone displays has two push-button controls:

Zone Selection The button on the upper left of the display frame has the zone number on it. Pressing this button chooses that zone as the currently selected zone for commands, destination targeting, and data display. The selection is designated by the flashing of the status lights on the display frame.

View The button on the upper right of the display frame is labeled *View*. Pressing this button will transfer you to the Zone Control Panel with this zone being viewed. Pressing this button is equivalent to selecting this zone (using the zone number button), and then transferring to the Zone Control Panel using the Panel Transfer Control push-button.

Drop Ships Control Panel

The Drop Ships Control Panel (Figure 8) provides detailed data about the troopships of your invasion fleet and their assigned drop ships. You can control the drop ships from this panel, including the selection and boarding of troops and the launching and recall of the drop ships.

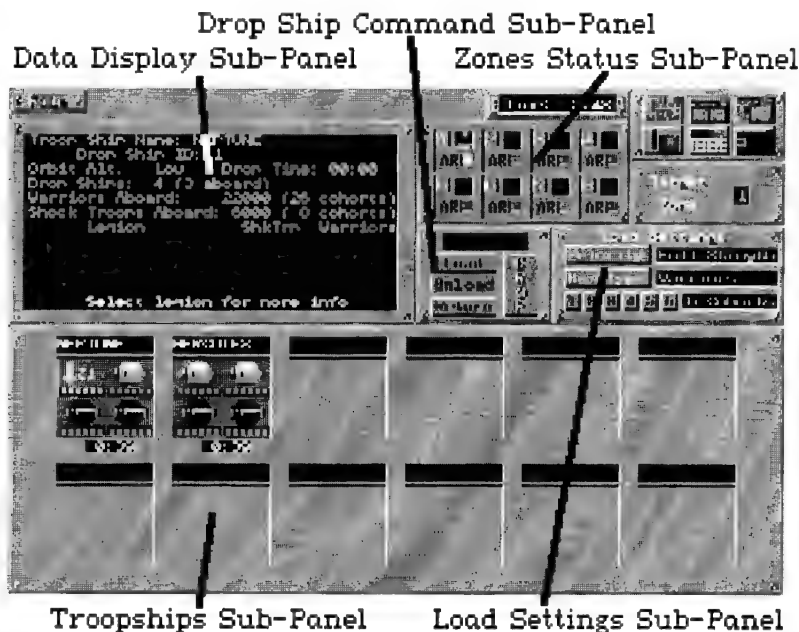


Figure 8: Drop Ships Control Panel

The Drop Ships Control Panel consists of the following sub-panels and areas:

Data Display Sub-Panel

This display shows information about the currently selected troopship, drop ship or legions. Data selection controls appear in the display.

Troopships Sub-Panel

This sub-panel displays the troopships that are currently in your invasion fleet, and the status of the four drop ships of each.

Load Settings Sub-Panel

This sub-panel allows you to control the criteria to be used to load drop ships and displays the currently selected settings.

Zones Status Sub-Panel

This sub-panel shows the current status of the drop ships and landing pads associated with each of the eight invasion zones. It also allows you to select the target zone, and start or stop auto-reinforce for any of the zones.

Drop Ship Command Sub-Panel

This sub-panel allows you to load, unload, drop or return (abort drop) of the currently selected drop ship.

DISPLAYS AND CONTROLS**Data Display Sub-Panel**

This displays information about the selected troopship and drop ship.

Troopships Sub-Panel**TROOPSHIP DISPLAYS**

This panel consists of twelve displays, one for each of the troopships that can be in your fleet at one time. The name of the troopship is shown in the indicator at the top of each troopship display.

Each troopship can carry four drop ships, the status of which are shown in this display. Each drop ship symbol that appears in one of the four squares for each troopship indicates a drop ship that is attached to the troopship. If the drop ship is not on board, then there will be an indication of its current status. If the drop ship is descending from orbit, there will be a down arrow along with the number of the target invasion zone. An up arrow with number indicates that the drop ship is returning to the troopship from the indicated zone. If the drop ship has been destroyed, a death's head symbol is shown. There are six small boxes (called load boxes) below each drop ship status symbol. These indicate the current load status of the drop ship. A box will be filled for each cohort loaded. Green-filled boxes are shock troops, while yellow-filled boxes are warriors.

At the bottom of each troopship display is a time indicator. The time displayed shows how long it will take a drop ship to reach the targeted invasion zone from that troopship. This is determined by the distance from the target and the troopship's altitude.

DROP SHIP SELECT Mouse Button

Point to one of the drop ships in the Troopship Display and click the left mouse button. This will select that drop ship as the current one for control, and will display information about it and its troopship in the Data Display. The drop ship pad in the Troopship Display will be highlighted by a box. Selecting another drop ship will deselect the current one.

Load Settings Sub-Panel

The following drop ship default settings can be changed using this sub-panel.

Priority

This toggle push button selects the condition of the cohorts to be given priority when loading, i.e., cohorts of the selected condition will be loaded before any others.

Full Strength Cohorts of full strength will be given priority for loading. Full strength warrior and shock troop cohorts have 1000 legionaries each. These cohorts are fresh and have maximum fire power. This is the default option, and is usually used to attack or reinforce strongly-held enemy zones.

Weakened Weakened cohorts, i.e., having suffered casualties, will be given priority for loading. Weakened warrior and shock troop cohorts have less than 1000 legionaries due to battle casualties. This option is usually selected to send down forces to mop-up weakly held enemy zones, when you want to save your powerful full strength cohorts for attacking strongly-held enemy zones.

Unit Type

This toggle push button selects the type of cohorts to be loaded.

Warriors The warrior cohorts are your most powerful type, and they can only travel to and from zones by drop ship. This is the default option and the one you will use most of the time.

Shock Troops The shock troop cohorts are not as powerful as your warrior cohorts, and they can also travel to and from zones by teleporters. About the only time you would select this option is if you no longer have any warrior cohorts aboard (or not of the desired strength), and there is not a troopship within sight of the targeted zone (the zone has to be within the field-of-view of a troopship to use the assault teleporters).

Number

There can be up to six cohorts (of either type) loaded onto a drop ship. Push the button of the desired default number to load (the default is six, and should rarely be changed). The number selected is displayed on the right. If there are not enough cohorts on the troopship to meet the setting, all the number available will be loaded.

Zones Status Sub-Panel

Drop Ship Status Indicators

Each of the eight small zone displays in this sub-panel has a status window which shows the current status of the drop ship or landing pad for that zone (see **Invasion Control Panel** for a description of the indicator icons).

CONTROLS

Each of the eight small zone displays in this sub-panel has the following two control buttons:

Zone Selection This button has the number of the zone on it. Press the button to select the zone as the destination target for the drop ship currently being controlled.

Auto-Reinforce (AR) Press this button to initiate auto-reinforce for that zone, if required. When AR mode has been selected, the indicator light on the button will be lit. The color of the light indicates the current AR mode. If the Krellan forces in the zone have a greater than 60:40 ratio advantage in total zone fire power, then AR will be in standby mode. This is indicated by a yellow indicator light. While the AR mode is active, the indicator light is green. This means that the Krellan forces in the target

zone have less than a 60:40 advantage in total zone fire power. Your troopships will automatically load drop ships according to your current settings, and launch them to the zone as soon as the zone landing pad will be available for the drop ship's arrival. After the drop ship has landed and unloaded, it will automatically launch back to its troopship. This automatic cycle will continue until (a) the Krellan forces in the zone achieve 60% of the total combined fire power (AR will then go to standby mode), (b) you turn AR off (by pressing the AR button again), or (c) you run out of legionaries or drop ships. If the landing pad is destroyed, the AR operation will cease until a new pad is built, at which time the AR will resume.

Auto-Withdraw (AW) This is the same button as for auto-reinforce, but the label and function will change based on the zone status. If the zone has been captured and WITHDRAW has been commanded, AW will become available. Pressing this button will initiate the auto-withdrawal of the zone. Empty drop ships will be automatically dispatched to pick up all warrior cohorts (and shock troop cohorts that are unable to teleport up), until the zone has been evacuated. Each drop ship will automatically launch from the zone once it has a full cargo, and another empty drop ship will be dispatched, if necessary.

Drop Ship Command Sub-Panel

This sub-panel allows you to issue orders to your currently selected drop ship. The current orders status and messages are displayed in the display window near the top of the panel. The following push-button controls are available:

Load The cohorts selected in the Load Settings will board the drop ship.

Unload Any cohorts currently on board the drop ship will disembark.

Return This orders your currently selected drop ship to return to its troopship. This command is usually used to abort a drop after the drop ship is on its way to the targeted zone.

DROP This orders the currently selected drop ship to launch from the troopship and head to the currently selected target zone.

Zone Control Panel

The Zone Control Panel (Figure 9) is where you will supervise the detailed assault of each of the invasion zones. You can either control the Krellan forces directly, indirectly, or leave command to the local commander and just monitor the battle.

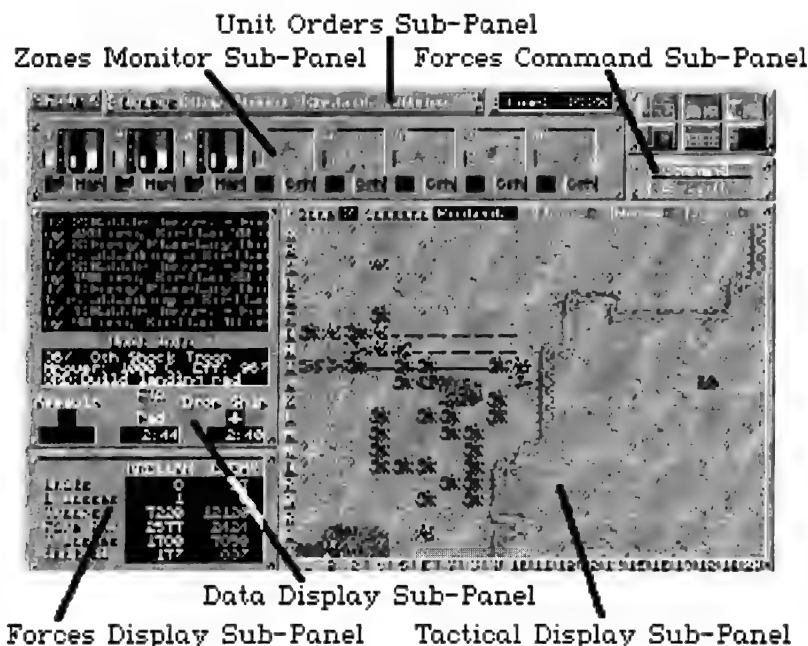


Figure 9: Zone Control Panel

The Zone Control Panel consists of the following sub-panels and areas:

Data Display Sub-Panel

This displays messages and reports, information about the currently selected unit, and estimated times of arrival for assaulting shock troops, drop shops, or completion of landing pads.

Forces Command Sub-Panel

This sub-panel provides the means to give orders to your invasion zone commanders and the assault shock troops standing by in orbit.

Zone Monitor Sub-Panel

This sub-panel consists of eight small displays, each with a miniature zone map and associated controls, to help you monitor what is happening in other invasion zones while you are personally directing the current zone.

Forces Display Sub-Panel

This sub-panel displays information about the Krellan and enemy forces in the zone, and the degree of control of the vital zone areas by each side.

Tactical Display Sub-Panel

This sub-panel displays a situation map of the current invasion zone, showing you the layout of the zone, and the location and strength of the forces involved. You have some controls available to help you make effective use of this display, and to give orders to individual units.

Unit Orders Sub-Panel

This sub-panel provides the means to give orders to your assault shock troops standing by in orbit and invasion zone commanders.

DISPLAYS AND CONTROLS

Data Display Sub-Panel

This sub-panel is divided into three display areas:

MESSAGES DISPLAY

This displays your current messages and reports.

UNIT INFO(RMATION)

This displays the important known information about the unit or icon you have selected in the zone map. Information about enemy units is lacking, but you will still be informed of the unit ID number and their current strength (manpower).

ESTIMATED TIME OF ARRIVAL (ETA)

This displays the estimated MET of arrival for assaulting shock troops (left indicator), a descending drop ship (right indicator), or the estimated time of completion of the landing pad under construction (center

indicator). For the assault and drop ship, a down arrow will also appear when one is expected.

Forces Command Sub-Panel

COMMAND Push Button

This brings up the CommVid with six command choices which are directed at all troops within the zone. The currently selected command appears above the zone map in the Zone Control Panel. The command choices are described under **Invasion Control Panel** section .

ASSAULT Push Button

This brings up the CommVid so you can initiate a shock troop assault on the current zone. This procedure is described under *Invasion Control Panel* section.

Zones Monitor Sub-Panel

Zone Map This is a miniature map of the zone, showing the location of forces as colored dots (red for enemy and white for Krellan), but does not distinguish the unit types.

Each of the eight miniature zone displays has two push-button controls:

Zone Selection This button has the zone number on it. Pushing the button will select that zone as the current one displayed in the zone map.

Graph (Grh) / Map Initially each mini-zone display has a map of that zone showing location of the various Krellan and enemy units (white and red dots respectively). The button below the mini-map will show the label "Grh". Pressing this button will replace the mini-map with two bar graphs. The left bars are labeled "U" and show the number of fighting units in the zone on a scale of 1 to 20. The white bar is for Krellan forces, and the red is for enemy forces. More than 20 units shows as a maximum of 20. The second bar shows the relative fire power of the Krellan and enemy forces. The greater the portion of the bar colored (red for enemy, white for Krellan), the greater the relative strength of those forces in the zone. While the mini-display is in Graph mode, the toggle button below the display will show the label "Map". Pressing this button will toggle back to the map mode.

Forces Display Sub-Panel

This displays the following data about both the Krellan and enemy forces in the zone:

Units This is the number of units that are present in the zone. For Krellans that includes warrior and shock troop cohorts, and drop ships. For the enemy, it includes militia or UGA regular brigades, PDPs, SALs, forts, and shield generators. Destroyed units are not included.

U Losses This is the total number of units destroyed so far in the zone.

Troops This is the total number of Krellan or enemy troops that are present in the zone. This is the combined sum of the strength of each of the units in the zone.

Firepower This is the total effective fire power of the Krellan and enemy units that are present in the zone. The fire power is a combination of the strength, combat effectiveness, and weapons quality of each unit.

T Losses This is the total number of Krellan or enemy troops that have been lost (casualties) in the zone.

Control This is an expression of how much of the zone is controlled by each side. Control means having a unit last be in a city/urban or industrial area (icon). The control is expressed as a percentage. 100% means all the vital areas are under control.

Tactical Display Sub-Panel

Zone Map This is a map of the zone, showing the terrain features, structures, and forces in the invasion zone.

The zone map display has the following push button controls on the upper frame:

Terrain When this toggle button is on (indicator lit), all the units, both Krellan and enemy, in the zone will be removed from the zone map so that the terrain underneath them can be viewed. Turn this button off to restore

the units. Note that the fighting will continue whether you are viewing the units or not.

Group Allows you to select more than one unit at a time for issuing orders. Press the group mode switch (indicator light indicates when it is active), and then click on each of the units to which you wish to give the same command. The selection high-light box will appear around each unit selected. Up to a maximum of 25 units can be selected in a single group. Note that only shock troop and warrior units can be selected in a group - drop ships cannot be selected. Once you have finished selecting all the group units, press the order button for the group, or click and drag the appropriate mouse button for the move to and pursuit commands. The unit selection highlights boxes will then disappear, even though group mode is still active. You will have to repeat the process to select a new group.

Zoom When this button is toggled on (indicator lit), the zone map will zoom in to a four times magnification. Details of the zone will be more identifiable, but more importantly, each unit in the zone will show as a square icon giving data about that unit.



For Krellan shock troop and warrior cohorts (identifiable by the standard symbols in the icon), the number at the top is the legion number, and below it is the cohort number within the legion. The current orders for the cohort are shown by a single letter in a display box in the icon. The possible orders are: L (local), C (construct landing pad), M (move to), P (pursue), S (stop), and W (withdraw). These orders are discussed in detail later in this section. At the bottom of the icon are two horizontal bars. The top bar shows the manpower strength of the cohort on a scale of 0 to 1000, and the bottom bar shows the combat effectiveness (including fatigue factor) of the cohort on a scale of 0 to 100%.



Enemy unit icons show an ID number all unit icons. This is not the actual unit number, but is instead an arbitrary number assigned by your battle computer to help keep track of enemy units. The enemy unit icons also have the manpower and combat effectiveness bars like the Krellan icons.

To move around the map while in zoom mode, press the left mouse button, move the mouse off the zone map in the direction you wish to scroll the map.

Unit Orders Sub-Panel

This panel shows the choices available for you to give orders to individual units within the zone. You must first select the unit to be ordered by clicking on it with the left mouse button. When the unit is selected, a box will outline the unit icon, and information about the unit will appear in the Info box. The orders sub-panel will show one of two sets of buttons:

1. Orders for Shock Troop and Warrior Cohorts

The orders to move and pursue are controlled separately, and are discussed later.

Stop The unit will hold its current position until you order to do otherwise. This is the individual unit equivalent of the **DIRECT** command.

Local The unit is under local zone command, and will adhere to the general command for the zone.

Construct The shock troop or warrior cohort will construct a landing pad at its current location. The terrain must be suitable for construction (clear terrain, a road, or a space port). It takes 40 minutes to construct a pad in the clear or on a road, and 10 minutes to convert a captured space port into a landing pad. If another landing pad already exists in the zone, it will be dismantled once the new pad has been completed. Only one operational pad is allowed in a zone at once.

Withdraw The selected unit (or units if the Group option was used) withdraws so it can either teleport back up to the troopships (for shock troops), or to go to the landing pad and board a drop ship when available (for warriors).

2. Orders for Drop Ships

Launch Orders a drop ship to launch as soon as possible. Drop ships will automatically launch if they are threatened by an enemy unit, i.e. it comes within the zone of control (ZOC) of an enemy unit.

Unload Unloading of drop ships is automatically done when it lands. However, if you issue a Withdraw command, and then change your mind, you can order the drop ship to unload all the troops aboard using this option.

PURSUIT Mouse Button

The right mouse button is used to order your cohorts to pursue a selected enemy unit. If you put the cursor on a cohort unit and press and hold down the right mouse button, you can order the cohort to any enemy unit in the zone. Just move the cursor to the enemy unit to be pursued without releasing the button. A brown box will appear on the map showing to which location you are currently pointing. Release the button when the brown box is on the unit to be pursued.

MOVE Mouse Button

The left mouse button is used to both select a unit for information or to give it orders. If you put the cursor on a cohort unit and press and hold down the left mouse button, you can order the cohort to move to any location in the zone. Just move the cursor to the desired location without releasing the button (i.e., "click and drag"). A brown box will appear on the map showing to which location you are currently pointing. Release the button when the brown box is on the desired destination.

OPERATIONS

Movement Rates

Units move at different rates based on their nominal speed, whether there are any enemy units nearby, and the type of terrain on which they are moving. Your shock troop cohorts are the fastest units, while warrior cohorts are the slowest moving. UGA regulars and militia units are in between. Units will move fastest on roads and clear terrain. The various unit speeds for various types of terrain are shown in Appendix B.

Zones of Control

Each combat unit has a zone of control (ZOC) which extends to each adjacent square on the map. If an enemy unit comes within this ZOC, it moves more slowly. Movement is especially slow within an enemy unit's

ZOC. Shock troops cannot teleport back to orbit while they are within an enemy ZOC. They must first withdraw, if possible.

Conducting Combat

Combat is initiated when one unit attempts to move on top of another. The unit moving is called the attacker, while the stationary unit is called the defender. The exchange of fire is simultaneous and is called a *combat action*. This action does not have to be conclusive, i.e., both units can survive an action, and it may take several actions before one of the units is destroyed. The defending unit possibly has the advantage of terrain in increasing its defense. The defense factors for the various types of terrain is shown in Appendix B.

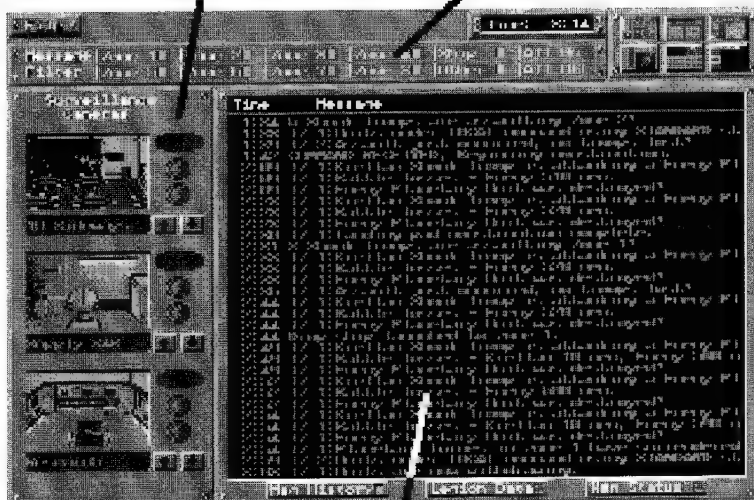
The units involved may even swap roles or disengage. Each action will result in losses to both units in combat effectiveness (25% for attacker and 20% for defender) and (usually) strength. To attack an enemy unit, you just have to move your cohort onto it or to a point past it. Your cohorts will generally attack any unit in their way, unless of course they are badly understrength. In this case, they will try to change course to avoid combat. If an attacking unit destroys a defending unit, then it moves onto the defender's square. If the attacker is destroyed, the defender will maintain its current position.



Data Control Panel

The Data Control Panel (Figure 10) provides data about your legions, and also a history of recent messages and reports.

Message Filter Sub-Panel
Surveillance Cameras Sub-Panel



Data and Message Display Sub-Panel

Figure 10: Data Control Panel

The Data Control Panel consists of the following sub-panels and areas:

Data and Message Display Sub-Panel

This sub-panel displays either recent messages and reports (message history) or displays data about your legions or mission status.

Message Filter Sub-Panel

This sub-panel allows you to select or filter out messages from the various zones and sources from being displayed in the Message Display. This helps you to isolate the important messages.

Surveillance Cameras Sub-Panel

This sub-panel allows you to view center interior areas of your ship, to keep an eye on what is happening.

DISPLAYS AND CONTROLS

Data And Message Display Sub-Panel

This sub-panel consists of a display and three push-button controls.

DISPLAY

The data and message display is divided into two areas. At the bottom is the large area where the messages or data are displayed. At the top is a single line display which shows the appropriate headings for the information being displayed.

MESSAGE (MSG) HISTORY Push Button

Pushing this button will cause the message history to be shown on the data display. The last 32 messages received in the console message displays will be shown, along with the time the message was received, and the source of the message. When this mode is active, the button indicator light will be lit.

LEGION DATA Push Button

Pushing this button will display detailed information about the legions involved in your current invasion. The column headers were described in the **Sign-On Options** section of the **Getting Started** chapter.

MISSION (MSN) STATUS Push Button

Pushing this button will display information about your current mission status. It displays your mission completion deadline, how many hours and minutes you have remaining to that deadline, what percentage of the cities have been captured and destroyed, and an indication of the current morale of the planet inhabitants (high, medium or low) based on the best estimate of your intelligence section.

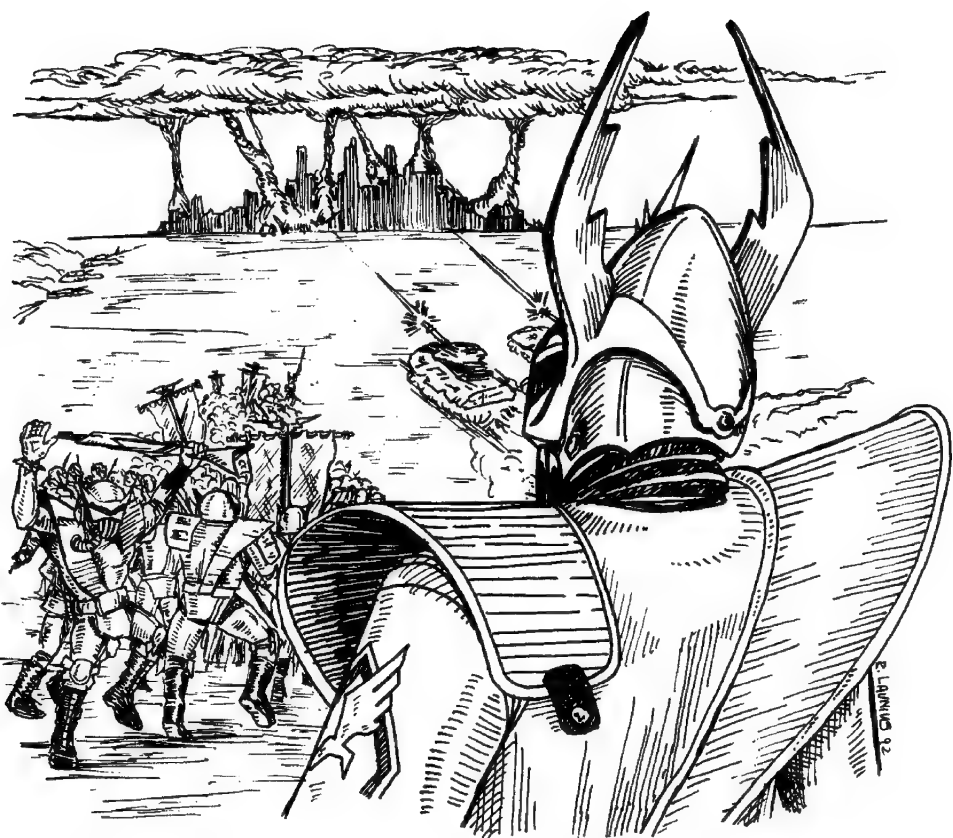
Message Filter Sub-Panel

MESSAGE SELECTION Push Buttons

These buttons allow you to select from which sources messages will be displayed while the data screen is in message history mode. Each active message source is indicated by a lit indicator light on the button. Push the button to toggle the message source on and off. There is one button for each of the eight invasion zones, plus messages originating from within your ship ("Ship"), and all other messages ("Other") such as messages from the planetary government or from Imperial Krellan Fleet Headquarters. The "All On" button will turn on all the filter buttons, while the "All Off" turns them all off (logical, huh?).

Surveillance Cameras Sub-Panel

There are three surveillance monitors which allow you to keep track of what is happening within your flagship. Each surveillance monitor has two push-button controls (up and down arrows) to select which channel to view. The surveillance cameras serve no useful purpose towards completing your mission, other than to provide a break from the action.



INVASION CHECKLIST

To successfully execute an invasion of a planet, you must follow certain steps to prepare and initiate the invasion. The best strategy to accomplish the defeat of the enemy will be up to you, but we can share the benefit of our experience to get you started.

Step 1. Destroy the Planetary Shield

This step is only applicable for high technology level planets (6 or 7), or planets defended by UGA forces. These planets have an energy shield which encompasses the entire planet like a shell. Although you will know what the planet surface looks like from the reconnaissance probe reports given to you in your briefing, the planet will appear visually just as a gray-colored sphere while the shield is up. This shield is impervious to your scanners and resistant to your ship weapons. You must execute a planetary bombardment to knock down this barrier to your invasion.

To order a bombardment, select Communications from either the Planetary Control Panel or the Orbital Control Panel. Press the Fleet button on the CommVid, and select Bombard. This will order all the battlecruisers and destroyers in your orbiting fleet to start independent firing of weapons at the planetary shield. You can contribute your own ship's fire power by selecting bombard mode, and either or both phasers and torps from your Weapons Sub-panel on the Planetary Control Panel. Click the left mouse button anywhere in the planet map area, and you will fire your selected weapons. The current strength of the planetary shields is displayed in the Planet Data Display. You will notice this value decrease as your warships score hits. When the shield strength reaches zero, the shields will be destroyed, and the planet will be exposed to your invasion.

Note that the enemy forces will shoot back at your fleet, even with the planetary shield in place. You may want to set your fleet's orbits to avoid large landmasses as much as possible. This is because the PDPs are located in the strategic cities, and can only fire at ships that come into their field of view, while your ships are equally effective against the shield no matter where they hit it.

Once the planetary shield has been knocked out, the fleet will automatically be commanded to cease fire. If you want the bombardment

to continue, then reselect bombard using the Communications command. The warships will fire at the planet's surface in general (not at the strategic cities), and the current damage level of the planet shown in the Planet Data Display will increase. This can sometimes be useful in getting a stubborn high tech level planet to surrender sooner. However, the more a planet is damaged, the unhappier KHQ will be. This displeasure will be reflected in your mission rating.

Step 2. Select Your Invasion Zones

It is important that you study the planetary data carefully before committing your troops to an invasion. Note the number of enemy troops, especially the tough UGA regulars, since they are the ones which will give you the most trouble (although on technology level 6 and 7 planets, the militia units will be a match for your shock troops). From the Planetary Control Panel, view every city on the planet. For planets with tech levels of 4 and above, viewing every city is especially important, because you might not have to assault them all. The higher tech level planets have radio communication, so every city will know how the battle for the planet is going, and they may give up without a fight. For low technology planets, you will have to conquer each city, so initial viewing will only help you decide in which order to attack them.

THE CAPITAL CITY

The higher tech level planets also have a capital city. This city can be identified by paying particular attention to the defenses and size of the city. It will probably be larger than most cities, and almost definitely better defended. The advantage of identifying and selecting the capital city for initial assault is that the loss of this city will have a major impact on the morale of the entire planet, which can cause the enemy to surrender sooner. Of course, assaulting the capital city does involve risks. It may prove to be very costly and difficult to capture. You might not want to get too bogged down in this one city and lose the battle of the planet because you run out of time.

TERRAIN CONSIDERATIONS

In selecting invasion zones, you should pay particular attention to the terrain and layout of each city. Cities with large expanses of water or quicksand, especially outside of the area covered by any city shields, can

make assaults by your shock troops difficult, if not dangerous. You can suffer high troop losses if the cohorts land in a quadrant with significant amounts of water (apart from rivers). Your troops cannot build landing pads on rough terrain or water, so some easily defensible clear terrain is needed.

EVALUATING THE DEFENSE

The final consideration in selecting invasion zones is the strength and layout of the enemy defenses. PDPs can cause serious damage to your fleet, and so you might want to give priority to the cities containing one or more of these deadly weapons. You may also decide to avoid cities that are defended by more than one SAL, especially if the SALs are near the center of the area protected by shields, or are protected by forts. More than one active SAL in an invasion zone is an invitation for the destruction of your drop ships. This can be especially disastrous if the drop ship is fully loaded at the time of destruction, as most of the loaded cohorts will probably also be destroyed. Survivors are rare.

Step 3. Soften Up the Defenses

This step is really optional, and is probably not advisable for use on planets without UGA forces. It should definitely be avoided with unshielded invasion zones.

To soften up a zone, you can use your ship's phasers or torpedoes to bombard it (see the **Planetary Control Panel** section). Anything outside the area protected by the city shield will be destroyed, and all ground will be turned to rubble. This is, of course, the reason you should not attempt this with unshielded cities. You will destroy the entire city, with the resultant severe consequences to your mission rating.

This strategy be especially effective if you can somehow, say by sending down and then withdrawing shock troops, lure significant enemy units to outside the shielded area. You can never, however, lure out all the enemy units. They are smart enough to hold some troops back to protect their shield generators and act as a reserve.

One major disadvantage with this strategy is your shock troops that follow the bombardment cannot build a landing pad on the rubbled terrain. They

must enter into the heart of the enemy defenses and knock out a shield generator before warriors can be sent down as reinforcements. This can prove to be very costly to your valuable shock troops.

Step 4. Assault with Shock Troops

Once you have selected the invasion zones, you should initiate the assault by sending in your shock troops.

SELECTING THE ASSAULT QUADRANT

Choose the order that the zones will be attacked. View the chosen zone (use the **View** button for the zone on the **Invasion Control Panel**) and note the area covered by city shields (if any), the layout of the terrain, and the disposition of the enemy forces. The assault teleporters are notoriously inaccurate, and you will only be able to specify one of four quadrants (northeast, southeast, northwest, or southwest) in which to beam your troops. Definitely pick a quadrant that is mostly clear of shielded area and water. Both of these will cause heavy casualties if your shock troops land on them. The area you choose should also have some clear terrain on which to build a landing pad and be relatively clear of enemy units, especially UGA regulars. Remember, your shock troops are at a disadvantage immediately after beaming in they are only at 50% of their combat effectiveness. The combat effectiveness will increase with time, but not if they are immediately engaged in combat.

SHOCK TROOP MISSIONS

The last factor to consider in choosing a quadrant is to decide on the mission of the shock troops. For low technology planets, you can command your shock troops immediately to the offensive, and they will probably be able to defeat the enemy even without the help of the warrior cohorts. However, on UGA or high tech level planets, the rush into combat using only your shock troops will be disastrous. You should leave your shock troops in Protect mode, and then order them individually to accomplish their initial mission. The following are examples of initial missions:

Conquest This mission is advisable only on low and perhaps medium technology level planets (tech level 1-5) that have no UGA forces. When your cohorts have a decided advantage in fire power over the

militia units, you can save time in conquering the planet by simply using enough shock troop cohorts to overpower the enemy. You will probably not even need to build landing pads or send down warriors in drop ships. You should generally send your cohorts into a quadrant with the largest number of city icons. For a conquest mission, it is probably best to set the zone command to Capture for fastest conquest of the zone, although Standard mode is also acceptable.

Landing Pad Construction For this mission, you select one cohort in a clear area away from enemy units, but not adjacent to the zone edge, to construct a landing pad. If there is not a cohort in a suitable position, then you can order one to move to the desired location for a pad. Even better than building a pad on clear terrain is to occupy an enemy space port and order that cohort to construct a pad there. Since most of the facilities already exist, this approach takes much less time to complete a landing pad (10 minutes versus 40 minutes from scratch). Other cohorts can then be positioned to form a protective ring between the pad construction and the counterattacking enemy units. It is best to leave some space between the protective ring and the pad for disembarking warrior cohorts when the drop ship has landed. If you order the cohorts into position, either by the move mouse button or the Stop order, then they will stay there until ordered to move, or the zone command is changed.

Raids In raids, you order one or more cohorts to attack enemy static defenses, such as SALs, PDPs, or shield generators. You do this by selecting the cohort(s) and ordering them to move onto the target. This is a necessity in zones which you previously bombarded, because you cannot build a landing pad until you knock out a shield generator. You might also want to knock out one or more SALs prior to bringing in a drop ship, because drop ships are vulnerable to SAL fire. Eliminating PDPs may also be a prime objective, since they can blast your orbiting ships, although they are useless against your drop ships.

Feints This is a useful strategy in heavily defended zones, where you doubt that your shock troops will survive the enemy counterattack long enough to complete a landing pad and bring in reinforcements without prohibitive casualties. Send a few cohorts into a quadrant away from where you intend to launch your prime mission (such as building a landing pad or conducting a raid). Then order the cohorts

to move into a corner or behind some rough terrain. Their presence will trigger an enemy counterattack. Although not all enemy units will be used in the counterattack, as some are kept in reserve to guard vital installations, a large number may be drawn away from your prime landing or target area. Your shock troop cohorts are slightly faster than the enemy, and should be able to reach the desired area before the enemy units can reach them.

It is best to use about three cohorts in feints. The enemy will not consider fewer to be much of a threat, and will only send a few units to counterattack. Many more than three may result in more combat and higher losses to your shock troops.

Timing is very important to the success of this strategy. You do not want to sacrifice your feinting cohorts needlessly, so it is often advisable to order them to withdraw just before the enemy units reach them. If an enemy unit comes within the ZOC of a cohort (i.e., adjacent to it), then it will not be possible to withdraw the cohort without destroying the enemy or moving it away. Of course, there are situations where you might need to sacrifice one or more cohorts to keep the enemy units occupied in combat to allow time for your main mission to succeed. The other part of the timing equation is when to launch your main mission. You want to delay long enough to allow the enemy to commit to a counterattack of the feinting cohorts, but not so long that the enemy eliminate the feint (either by forcing the cohorts to withdraw or by destroying them) and be available to respond quickly to your main assault.

These are only a few of the possible missions. Variations of these missions have been used successfully, and you will probably find other uses for your shock troops. Often you will want to employ more than one of these missions simultaneously for an assault on a heavily defended zone.

SIZING THE ASSAULT TEAM

After selecting a mission and quadrant for your shock troops, you need to determine how many cohorts to send in each assault wave. This will depend on the mission type or types, the expected resistance, and the availability and condition of your shock troop cohorts. Generally, feint and raid missions require fewer cohorts than conquest and landing pad

construction and protection missions. Remember that the maximum number of cohorts that can be sent in a single wave is nine.

SHOCK TROOP TACTICS

Besides the initial assault of a zone, shock troops are valuable as a fast response reserve force. You can quickly teleport several cohorts of shock troops to reinforce hard-pressed ground units, or to take advantage of the redeployment of enemy units that provide an opening for a quick and decisive raid.

If you are not allowed to teleport an assault wave of shock troop cohorts, it may be because you do not have a troopship within view of the target zone. It is often best to keep a troopship in geosync orbit above one or more active invasion zones so that they can provide prompt support.

The most important thing to remember about shock troop assaults, as has been stated previously in this manual, is that shock troops are your most valuable resource. On UGA or high tech planets especially, you should withdraw every shock troop cohort as soon as it has completed its mission. Do not let them engage in combat with UGA regulars if at all possible. They will be crushed if you do. Shock troops are required for assaults on invasion zones. Once all your shock troops are gone, you cannot attack any zones without landing pads, no matter how many warrior cohorts you have in orbit. At that point your only option is to bombard the planet into submission, which will have an adverse effect on your mission rating.

Step 5. Attack of the Warriors

Once your shock troops have built a landing pad, it is important to get drop ships full of warrior cohorts there as soon as possible. The only reason you might want to delay is to give your shock troops time to eliminate any SALs in the zone. The SALs, especially on UGA and tech level 7 planets, have a fairly high probability of shooting down an incoming drop ship. A drop ship that is shot down might be able to crash land and save one or more of the cohorts on board. However, it might also be destroyed along with the cohorts it's carrying.

THE DROP AND ARRIVAL

The fastest and most efficient way to ensure speedy arrival of the warrior reinforcements is to use the Auto-Reinforce (AR) feature on the **Drop Ships Control Panel**. Click this button on for each zone you intend to reinforce with warriors using the current load settings.

If the Krellan fire power has less than a 60:40 advantage over the enemy fire power in the zone, then AR will be in active mode. The closest troopship to the zone will automatically launch a loaded drop ship as soon as it has determined that the arrival time of the drop ship will coincide with or be after the completion of the pad. When the drop ship arrives at the zone, it will automatically unload the cohorts on board as long as there is space around the ship. Once the drop ship is unloaded, it will automatically launch back to its troopship. This automatic launch only occurs if AR is on or the drop ship is within an enemy unit's ZOC.

If the Krellan fire power advantage over the enemy in the zone is more than 60:40, then AR will be in standby mode. As soon as the fire power advantage falls below the criteria level, then AR will become active, and the reinforcement will commence.

When your first drop ship of warriors lands, be sure that the zone command has been changed to one of the offensive modes (standard, capture, or reduce). This will move the warrior cohorts away from the landing pad as soon as possible, allowing space for following cohorts to disembark.

Once the warrior cohorts have disembarked, order the drop ship to launch (if it's not on AR). Using the Group command, quickly order all shock troop cohorts defending the landing pad to withdraw. It might take a while for any cohorts engaged in combat to extricate themselves to where they can teleport up. If a cohort is not able to respond to its orders for quite a while, such as being unable to withdraw from combat, it may revert to local command again.

COMMAND TACTICS

With your warrior cohorts free to rampage, you will most likely want to set the local zone command to Standard. This is a good all purpose command, which allows the cohorts to freely attack targets of opportunity, whether it's enemy units or nearby city blocks and factories.

If your warrior cohorts are close to the majority of the city blocks and industrial areas, then you might force surrender of the zone quicker by selecting the Capture command mode. This orders your cohorts to give priority to occupying the city and industrial blocks over chasing enemy units. When all the city and industrial blocks have been captured by your cohorts, the zone will surrender, regardless of the number of remaining enemy forces. This tactic can also work if you have engaged most of the enemy units off in the countryside with your warriors, making possible a quick occupation of the city areas by newly arrived shock troops.

The third offensive mode is reduce. This orders your cohorts to concentrate on eliminating the enemy forces rather than occupying territory. This tactic is appropriate in some situations, such as having your warrior cohorts hunt down and destroy enemy mobile forces, thus preventing them from counterattacking shock troop cohorts you might have on raids behind their lines. You can also capture an invasion zone by eliminating all the enemy forces (both mobile and static), regardless of how many city and industrial blocks have been occupied. Remember too, that KHQ keeps track of the number of combat actions each legion is involved in, and this is a factor in the number of battle honors awarded to the legions after the invasion and their legion battle rating. Letting your legions run on the rampage, slaughtering enemy units, may be to your advantage in later missions by giving your legions more experience and higher battle ratings.

Regardless of the command you have selected for the zone, there are times when you will want to command one or more of the cohorts directly. This is especially true to conduct raids and special missions as discussed previously. However, there are tactical situations where it will be advantageous to use the mouse move and pursuit buttons to order cohorts to chase or intercept enemy units, or to occupy a specific strategic location, such as a space port, a factory, a pass between rough terrain, or an isthmus. When a cohort reaches the location you have chosen, it will stop there and occupy it until further orders are received. If a cohort has been sent to pursue an enemy unit, it will revert to local command once the enemy unit has been destroyed.

CONQUEST AND WITHDRAWAL

Once your troops have gained the advantage in a zone (the graphs display in the Zones Monitor Sub-Panel will quickly show you if you have the

upper hand), you might want to withdraw your strongest warrior cohorts and replace them with weaker ones for the final mopping up. You can do this by turning off the AR mode for the zone on the Drop Ships Control Panel, selecting the current zone as the target zone, and changing the load settings to "weakened" warrior cohorts. Load and launch the drop ship. Once the drop ship has landed, order your stronger cohorts in the zone to withdraw (possibly using the Group command).

When a zone has surrendered to your forces, you should select Auto Withdraw (AW) mode for the zone on the Drop Ships Control Panel. This will cause a continuous cycle of empty drop ships from the troopships to pick up and return any warrior cohorts in the zone. This operation will continue without your attention until all Krellan cohorts have been withdrawn from the zone. AW for that zone will automatically turn off.

Step 6: Victory!

There are two ways to successfully complete the conquest of the planet and gain the resultant glory and riches. You can either capture (or destroy) all the target cities, or force the planet to surrender. For low technology level planets (tech level less than four), the first method is your only option. High tech level planets will probably surrender before you have captured all the cities, although some UGA tech level 7 planets have been known to fight to the bitter end.

CONQUEST OF INVASION ZONES

Individual invasion zones can be conquered by one of two methods:

Destruction of All Enemy Forces The zone will surrender if you can destroy all the enemy forces present. This means destroying all UGA regular units, all militia units, all forts, all shield generators, all SALs and all PDPs in the zone.

Capture of the City The zone will surrender if you can occupy and control 100% of the vital areas of the zone. This includes all city blocks, factories, and space ports. Forts and other static defenses do not have to be occupied. On the tactical display map, this means that all the above-mentioned icons need to be predominately white in color, signifying Krellan control, rather than red, which signifies enemy control.

SURRENDER OF THE PLANET

For the higher tech level planets, significant events affect the planetary morale value. Destruction or capture of cities, and destruction of enemy units lowers morale, while setbacks to your forces will raise it (see the **The Planets** section of the **Pre-Command Briefing**). Once the planet morale has dropped to zero, the planet will surrender.

FAILURE

Although failure is never an acceptable result, it may sometimes happen.

Exceeding Deadline You have been given a deadline in your orders. If the deadline is simply set by KHQ, you may continue your mission right up to that point. However, if the deadline is hard deadline, such as the arrival of an UGA War Fleet, then you will need to take steps to avoid disaster. You will be given two warnings of the impending approach of the enemy fleet. During the remaining time, you should withdraw all your forces from the planet's surface, and order the fleet to withdraw (using Communications) before the UGA fleet arrives. If you don't and the enemy fleet jumps you, then all remaining Krellan forces on the planet's surface will be lost, and you will probably lose some of your orbiting ships. This will be disastrous to your mission rating.

Repulsion of Invasion Another way you can fail is to reach a point where you are unable to conquer the planet regardless of time left, and the only choice is to withdraw or destroy the planet by bombardment. This can possibly occur if you have lost all your shock troops, or if you have lost all your drop ships or troopships. If you reach this point, consider calling KHQ via Communications for help. It will hurt your rating, but not as much as giving up. If you have already used up your help and are still in a hopeless position, you are a really lousy commander and deserve the wretched rating that KHQ will assess for you.

APPENDIX A - BACKGROUND HISTORY

The glorious Krellan Empire is engaged once more in a life or death struggle with our hated enemy, the United Galactic Alliance (UGA). The UGA consists of over 500 inhabited member planets, although there are many more inhabited but independent (non-aligned) planets within their space. The UGA central authority uses an archaic, proven inefficient and degenerative system of government called "democracy." As unbelievable as it may seem, this system actually lets the ignorant masses of the inhabitants select their leaders based on an often rigged popularity contest called elections, where the in-bred rich can buy their way to leadership. The UGA even has the audacity to allow its member worlds to have their own forms of autonomous government! They encourage the weak to thrive, while suppressing the strong. Despite this weakling leadership, the UGA is protected by a formidable force called Star Fleet. This foe is worthy of our challenge and will give our legions the opportunity to earn many battle honors. The UGA space is divided into a home sphere; where the home planets and oldest colonies are located; an inner shell, which contains mostly Alliance colonies and independent worlds; and an outer shell, which is mostly unexplored territory with a few young colonies and mostly independent worlds. In this outer shell facing the Krellan Empire is the Alliance Defensive Zone.

Twenty-three years ago, our first war of righteous conquest, known as the Great and Holy Galactic Crusade of Appropriation and Entitlement, was thwarted by the cowardly treachery of 55 despised and never-to-be-named former Krellans officials in the Imperial government. These traitors signed a "peace" treaty with the UGA after our forces had made a temporary and cunning tactical withdrawal from Alliance territory to lure their fleet into a trap. The terms of this so-called treaty caused untold degradation, shame and humiliation of our beloved warriors as they were forced to disarm, and it plunged the Empire into ruin.

After our beloved Emperor, Henri Zae IV, ascended to the Dreadful Throne of Imperial Death, he saw that each of the traitors was slaughtered in the most horrible way possible and their entrails used to feed the Imperial falcons. Having rid the Empire of the cancer that these traitors were, the Emperor restored the pride of the Krellan Empire and rebuilt it to an unsurpassed level of strength.

When at last the time was ripe, the Emperor unleashed his brilliant plan of revenge onto the unsuspecting UGA, in what is now known as the Most Holy War of Revenge. With the minor help of our Zaldron allies, we smashed their Defensive Fleet headquarters on the planet Draesus Beta II with a brilliant stroke of tactical genius that caught the enemy unprepared. By stripping the other parts of Alliance space, they were able to send enough reinforcements to stop this initial thrust by our forces. Thus ended Phase I of the Emperor's brilliant master plan.

In Phase II, the Emperor sent thousands of our destroyers and some Zaldron ships to attack the flanks of the Alliance to either side of our common border. Despite the valiant effort of a few heavy cruisers, our ships pressed on deep into UGA space. Star Fleet Headquarters was forced to divert ships from reinforcing the central defensive zone to stop these threats to their flanks.

In the meantime, our main force was building for the fatal strike to the heart of the Alliance through the weakened central Defensive Zone. Phase III began with a smashing attack led by 685 battle fleets, at the core of which were our new and powerful *Klagar* Class battlecruisers. Supporting this thrust were 13 command squadrons, 411 supply squadrons, 296 invasion squadrons (containing 1,184 legions), and 12,469 independent destroyers. The irresistible first wave of naked power soon smashed through the Alliance defenses in the central Defensive Sector. The crowning achievement of this first wave was the locating and destruction of the UGA Fifth Fleet Regional Headquarters.

The remnants of the first wave in this attack, reinforced by the fleets of the second wave, have now broken into the inner shell of the UGA. The emphasis of the second wave is in invasion fleets, which are currently encountering mostly independent worlds to conquer. As we get closer to the Home Sphere, we expect to encounter more and increasingly stronger UGA worlds. We have retrained some of our proven and experienced battlecruiser commanders to be invasion commanders. These commanders will take charge of invasion fleets, each of which will consist of one or more invasion squadrons, depending on the strength of the target planet. As you know, each invasion squadron consists of one troopship containing four legions, escorted by destroyers. The goal of this second wave is to penetrate the Home Sphere and smash the UGA into oblivion!

APPENDIX B - GENERAL INFORMATION

Krellan Ships

Klagar Class Battlecruiser



Symbol

The *Klagar* class battlecruiser is currently the most powerful ship in the Krellan Empire. These ships are particularly suited for knocking out orbital defenses and bombarding planets. Battlecruisers are usually accompanied by four destroyer escorts, forming a *battle fleet*. A battlecruiser acts as the flagship for the invasion commander.

Total Power: 4000 units

Critical Systems: 12

Officers: 35

Defensive Shields: 1

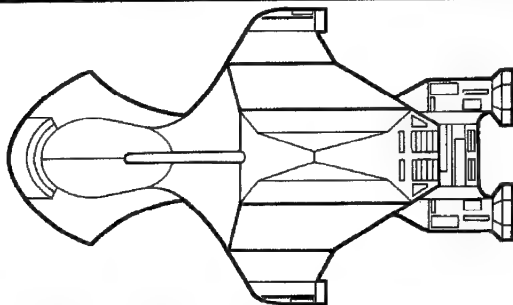
Torpedoes: 24

Ratings: 240

Supplies: 1000 t

Phasers: 1

Shock Troop Guards: 150



Piranha Class Destroyer



Symbol

The *Piranha* class destroyer is the most common and versatile warship in the Krellan fleet. It can act independently as a fast attack or patrol craft. However, it is the ship most commonly used to provide escort to other ships of the fleet, and almost always accompany the relatively helpless troopships and supply ships in Krellan invasion fleets. Destroyers are armed with torpedoes, which can help in planetary bombardments.

Total Power: 1000 units

Critical Systems: 10

Officers: 22

Defensive Shields: 1

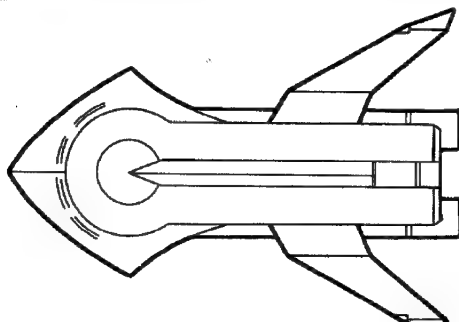
Torpedoes: 10

Ratings: 113

Supplies: 200 t

Phasers: 0

Shock Troop Guards: 25



Nebula Class Supply Ship



Symbol

The *Nebula* class supply ship is the workhorse transport of the Krellan fleet. These rugged and reliable ships carry the logistics and equipment needed to resupply the ships in the invasion fleet. Their cargoes include energy for power replenishment, supplies, torpedoes, and heavy equipment. These huge ships are the second largest in the Krellan fleet. Supply ships are unarmed, but are protected by a defensive energy shield.

Total Power: 3000 units

Critical Systems: 10

Officers: 45

Defensive Shields: 1

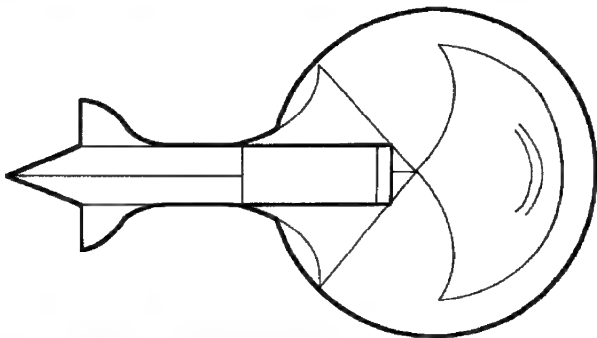
Torpedoes: 64 (cargo)

Ratings: 235

Supplies: 3200 t

Energy: 5000 (cargo)

Shock Troop Guards: 100



Mammoth Class Troopship



Symbol

The *Mammoth* class troopship was specially designed to carry four complete assault legions (40,000 legionaries) with all their equipment, as well as the drop ships to shuttle them to the planet's surface. These massive ships are the largest in the Krellan fleet. The drop ships, each of which can carry six cohorts (6,000 troops) and their equipment, are stored beneath the troopship superstructure. Troopships are unarmed, but are protected by a defensive energy shield.

Total Power: 3000 units

Critical Systems: 9

Officers: 56

Defensive Shields: 1

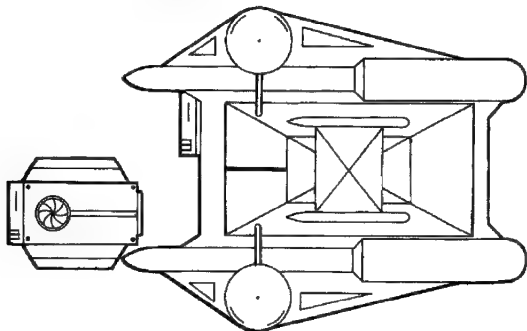
Legions: 4 (40,000 troops)

Ratings: 324

Supplies: 3000 t

Drop Ships: 4

Shock Troop Guards: 100



Combat Units

The following tables of the combat levels show the maximum values possible. The maximum fire power ($FP_{\max}$) of a unit is defined as:

$$FP_{\max} = \text{Max. Strength} \times \text{Strike Effectiveness}$$

The actual fire power is modified by the combat effectiveness of the unit, and the battle rating of the parent legion (for Krellan units):

$$\text{Fire Power} = FP_{\max} \times \frac{\text{Combat Effectiveness}}{100} \times \frac{\text{Battle Rating}}{100}$$

TABLE B.1 Enemy Combat Units Combat Levels

Unit Type	Symbol	Strength	Strike Effect.	Fire Power
UGA Regulars Battalion		1,000	0.90	900
Planetary Militia: Tech Level		1,000		
1	None		0.00	0
2			0.02	20
3			0.05	50
4			0.10	100
5			0.20	200
6			0.40	400
7			0.60	600

TABLE B.1 Krellan Combat Units Combat Levels

Unit Type	Symbol	Strength (Manpower)	Strike Effect.	Fire Power
Shock Troop Cohort		1,000	0.70	700
Warrior Cohort		1,000	1.00	1,000
Drop Ship		50	1.00	50

TABLE B.3 Terrain Effects on Movement Rates

TERRAIN (*barren planets)	SYMBOL (may vary)	SPEED (squares/hr)			
		Krellan Shock Troops	Krellan Warriors	UGA Regulars	Planet Militia
Clear		25	20	22.5	22.5
Water or Quicksand*		5	4	4.5	4.5
Rough		10	8	9	9
River or Quicksand*		12.5	10	11	11
Road		25	20	22.5	22.5
City		16.5	13	15	15
Factory		16.5	13	15	15
Space Port		16.5	13	15	15
Rubble		12.5	10	11	11
Landing Pad		12.5	10	11	11

TABLE B.4 Terrain Effects on Defense

Terrain	Defense Factor	Terrain	Defense Factor
Clear	1.0	City	2.0
Water	0.5	Factory	1.7
Rough	1.4	Space Port	2.0
River	0.9	Rubble	2.0
Road	0.9	Landing Pad	0.9

Decorations And Awards

An elaborate awards system has been set up to recognize and reward outstanding achievements in the service of the Empire. There are two basic types of awards - those that are based on your performance during your missions as determined by your mission rating, and those that are for the accomplishment of special events.

ILLUSTRIOUS SERVICE AWARDS

The illustrious service decorations and awards (Table B.5) are based only on your current mission rating at the end of a successful mission. There are five award levels, Level I being the lowest, while Level V is the highest and the most prestigious. Awards are presented in order within each award level. If you already possess the last award in each level, then you will be awarded another of the first awards. You can be presented the same award any number of times. The minimum mission rating required to receive each award level is given in the first column. You will receive only the highest level award for which you qualify after each mission.

SPECIAL AWARDS

The decorations and awards shown in Table B.6 are bestowed for special events and significant achievements that occur during your missions, and are not based on your mission rating or rank. You will receive these awards in addition to any Illustrious Service Award that you may have earned for a mission. There are other special awards not listed here that you may receive during your career for significant events, such as wanton acts of brutality or treachery.

Table B.5 Illustrious Service Awards

Level	Award Order	Decoration	Eligible Ranks
I >75%	1 2 3	Henri Zae Medal for Loyalty Krellan Award for Gallantry Empire Defense Shield	All
II >80%	1 2 3 4	Nebula Defense Cluster Bronze Serpent Silver Flame of Torack Nebula Defense Cluster with Palms	All, but tech level must be > 3
III >85%	1 2 3 4	Order of Death Silver Serpent Crossed Sabres of Kree with Silver Star Order of Death with Emeralds	Prefect and above
IV >90%	1 2 3 4	Gold Serpent Order of the Black Knights Crossed Sabres of Kree with Gold Star Gold Serpent with Rubies	General and above
V >95%	1 2 3	Hero of the Empire Gold Skull Hero of the Empire Gold Skull with Sabres Hero of the Empire Gold Skull with Sabres and Rubies	Field Marshal and Imperial Tribune

Table B.6 Special Awards

Decoration	Reason for Award
Planetary Assault Medal	For personally commanding the invasion of a planet of tech level 2 or greater that is defended by enemy forces. Awarded only once.
Medal of Conquest (with Bronze Talons)	For personally commanding the invasion and conquest of a tech level 2-4 planet. Subsequent conquests each earn a Bronze Talon.
Matci Medal of Conquest (with Silver Talons)	For personally commanding the invasion and conquest of a tech level 5 or 6 planet that has no UGA forces. Subsequent conquests each earn a Silver Talon.
Zagar's Dagger of Conquest (with Gold Talons)	For personally commanding the invasion and conquest of a UGA or tech level 7 planet. Subsequent conquests each earn a Gold Talon.

The Creators of *Star Legions*

Trevor Charles Sorensen, the creator of the *Star Fleet* series and the designer of *Star Legions*, was born in Brisbane, Australia in 1951. After finishing high school, he moved to the U.S. to attend college. He received his B.S., M.S. and Doctor of Engineering degrees in Aerospace Engineering from the University of Kansas during the '70s. While in graduate school, he worked on the Pioneer Venus Project at NASA Ames Research Center. In 1980, he was employed by McDonnell-Douglas as a contract engineer to the NASA Johnson Space Center. He spent 7 years working on mission planning, operations, and software for the shuttle. He also worked in Mission Control for several flights as an assistant to the Flight Directors. In 1982, Trevor and some friends started Cygnus. Trevor was the General Partner of Cygnus, which published his critically acclaimed program *Star Fleet I - The War Begins!* When Cygnus incorporated as Interstel Corporation in 1986, Trevor was the President and Chairman. In 1989, Interstel released Trevor's second game, *Star Fleet II - Krellan Commander*. Trevor left Interstel in 1990, and sold all his stock in the company in 1991. In 1990, Trevor started working for Bendix Field Engineering in Alexandria, Virginia. He was an Encounter Manager for the SDIO/NRL LACE satellite and directed the successful acquisition and tracking of a rocket plume by the satellite. He is currently the Lunar Mission Manager for the SDIO DSPSE probe, which is to be launched in early 1994. In 1992, Trevor and two friends, Richard Launius and Brett Keeton, formed a new company called Supernova Creations. The goal of this company to design and develop high quality computer and board games. *Star Legions* is their first product. Trevor is currently living in Virginia with his wife Lori, daughter Angela, and cat Cleo.

Brett Norman Keeton After being born in Oklahoma City in 1963, Brett's parents moved him to Houston to work in the space program (his parents, not Brett, worked in the space program. He wasn't quite that precocious.) He grew up in Houston playing sports and sweating, although not always at the same time. While serving as captain of the Friendswood High School baseball and basketball teams, he briefly (about 5 minutes) considered a career as a professional athlete. Coming to his senses, he realized he'd better get a college degree. Brett graduated from the University of Oklahoma with a B.S. in Computer Science. While at OU, he developed many computer games for the Radio Shack Color Computer, C-64, and Apple II. One of these was *Star Fleet I: The War Begins!* (Apple and C-64.) Upon graduation Brett started his professional career with IBM. After realizing IBM was not the place him, he then took a job with McDonnell Douglas in Titusville, Florida developing software for the Tomahawk cruise missile. Brett and his wife, Hilary, soon realized Florida was no place to raise a child, which they were about to have. So they packed up their bags and moved to Colorado where their son, Mitchell, was soon born. Brett and his family currently reside in Littleton raising polecats for pets and/or food. When he isn't designing new and exciting computer games, Brett works for Video King Gaming Systems designing new and exciting casino games. Brett's main claim to fame is once being mistaken for Tom Cruise, but it was by an 82 year old Tibetan monk. Who, in retrospect, was probably saying something in Tibetan that just happened to sound like "Hey look, its Tom Cruise!" Actually, the monk had just stepped on a nail and was probably saying something like, "Dali Lamal who the Hades would leave a board with a nail in it in the middle of the road?"

Mark Lewis Baldwin Previous rumors have debated over the birthplace of Mark. Some place it on the three hundred and twenty-second planet of the Betelgeuse system from which he was stolen away by space gypsies in his second year. However, many years of research have proven that said planet is missing from the system, so the more unlikely possibility that Mark was born in Detroit Michigan in 1952 must be believed. Mark spend a semi-normal life growing up in Michigan, Indiana, Alabama, Japan, Georgia, Germany and Florida. It was during this time that he picked up an interest in strategy games of which he claims that he now has nearly a thousand. College was next on the agenda, where in 1974, Mark received both Bachelors and Masters degrees in Engineering from Purdue University. It was also during this time that Mark picked up his interest in computers. That was due to the fact that as a freshman, one could avoid taking drafting by taking a computer class. Since Uncle Sam had paid for Mark's four years at Purdue, Mark was obliged to return the favor at SAC Headquarters in Omaha Nebraska. From this, he learned everything there was to know about Soviet ICBM'S which has been of absolutely no value in designing computer games. Realizing this failure of value, Mark left life in a blue suit to work on the Space Shuttle Program in Houston Texas in 1979. There he worked on shuttle flights for seven years. It was during this time that Mark also started writing games for the computer, first amateur, then commercial. In 1986 Mark left the Shuttle Program to move to Colorado to design games full time. It was during this time that he co-authored the award winning *EMPIRE*, along with many other products. Later he helped form White Wolf Productions, one of the top computer game design houses in the country today. So now, Mark is still wasting away his time on computer games, and spending his free time in the mountains panning for gold.